

JOE WEIDER'S **MUSCLE** **10** MINUTE TOTAL-BODY WORKOUT!
& FITNESS
MAY 2015
BRITISH EDITION

**VINCE
McMAHON**
THE WWE CHIEF
IS BETTER
THAN EVER
AT 69!

**ROCK HARD
CHALLENGE**
GET STRONG
& LEAN IN
8 WEEKS

**ABS
OF STEEL**
WITH ONE
UNUSUAL
MOVE!
(And One
Dumbbell)

**KETO
DIET**
THE KEY
TO WEIGHT
LOSS?

**18
EASY
MEALS
THAT BUILD
MUSCLE**

**BIG
BACK
BASICS**

**BIGGER &
STRONGER
OVER 40!**



MAY 2015 UK £4.20

9 770955 138134 05

www.muscle-fitness.co.uk



BOSS IT

It's time to show the gym who's boss.
Walk in. Tear it up. Walk away.
#BOSSIT then prove it @SCIMX



SCIMX[®]
NUTRITION
you at your best

GET

SOME..

#GGA

SEE US AT

BODYPOWER EXPO 2015

15TH - 17TH MAY 2015, NEC, BIRMINGHAM

PUSHING THE BOUNDARIES OF THE BODY'S POWER

AINZ

"If you want to grow more you have to eat more."

It's a mantra that's as old as the barbell, but still holds true to this day. Yet this does not mean eat whatever food you can put your hands on. If you eat like sh#t, you will look like sh#t! Dedicated #Gainz has no cheap unhealthy sugar based formula, but was designed around the thought of simply eating more high quality food combined with cutting edge 21st century food technology. 2015... it's time to grow! Get some.. #GAINZ

UK official suppliers:



dolphinfitness



**COLOSSOL
NUTRITION**
WWW.COLOSSOLNUTRITION.COM



Join our ranks! | www.facebook.com/dedicatednutrition

**I AM
DED
ICAT
ED**

WELCOME TO
THE NEXT LEVEL



NEW INTRA BCAA+

PREMIUM INTRA-WORKOUT BCAA FORMULA

7000MG
BCAA'S PER SERVING

2400MG
L-GLUTAMINE

4:1:1
BCAA RATIO

COCOMINERAL®
COCONUT WATER POWDER



AVAILABLE IN 2 DELICIOUS FLAVOURS:
COCONUT & MANGO & **COCONUT & LIME**

Features

58 ROCK HARD CHALLENGE—PART 1

Get huge, ripped, and perform better than ever.

78 MR McMAHON

The WWE's chairman is still making gains at 69 years old. Will you be?

90 GO BALLISTIC

Build speed and strength with our Soviet-inspired plyometric routine.

98 STRONG MEN

The 10 most powerful humans to ever roam planet Earth.

106 SPICE TRADE

Revamp bland meals with rubs, marinades and sauces.

118 FIGHTING BACK

Ben Mudge doesn't just train to look great; he hits the gym to help combat cystic fibrosis.

128 NINJA FITNESS

Have you got what it takes to endure the toughest obstacle course ever to hit British TV?

136 COVER MODEL TO STRONGMAN—PART 2

Fitness model Kirk Miller continues his three-month strongman makeover.

146 MYTHBUSTERS—FRESH FOOD

Mark Gilbert investigates whether the way food is cooked or stored really makes a difference.

154 REAL FINANCIAL MUSCLE

Tom Exton proves you can have a hectic, high-flying career *and* stay razor-sharp.

164 STRAIGHT UP: BACK

Time to ditch the gimmicks. Simplify your back training programme to get growing again.



GRENADIE[®]

CARB KILLA

LOW CARB BAR

A THICK LAYER OF CARAMEL OVER A
SOFT, CHEWY BASE FILLED WITH
CRUNCHY 'CRISPIES' ALL COATED IN
MILK CHOCOLATE!

OVER
23g
PROTEIN*

LESS THAN
1.5g
IMPACT CARBS*

LESS THAN
1.5g
SUGARS*

*PER 60g BAR



GRENADIE[®]
WWW.GRENADE.COM

JOIN
UP



Sections

16 EDGE

Camille LeBlanc-Bazinet—the fittest woman on Earth; MMA Marvel Jamillette Gaxiola; and five-time heavyweight champion Evander Holyfield.

28 TRAIN

Tips for the over-40s; 10-minute torcher with a quick-hit TRX routine; and one simple way to train core stability.

46 EAT

Prime your muscles with fungi facts; chicken stew to help your muscles grow; five delicious eats using black beans; and an ultra-low carb treat.

170 SUPPS

The latest in supplement and product news.

175 EXPERT

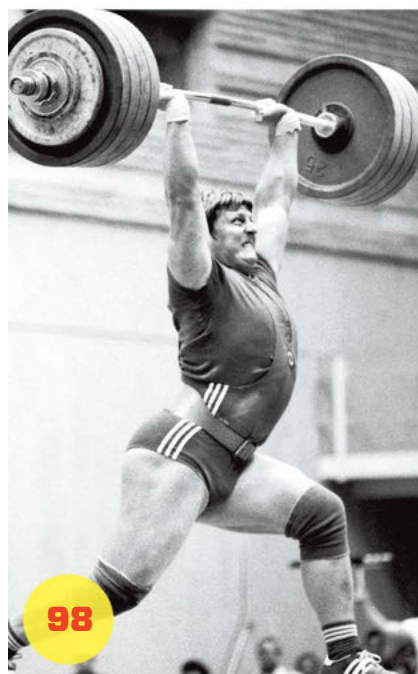
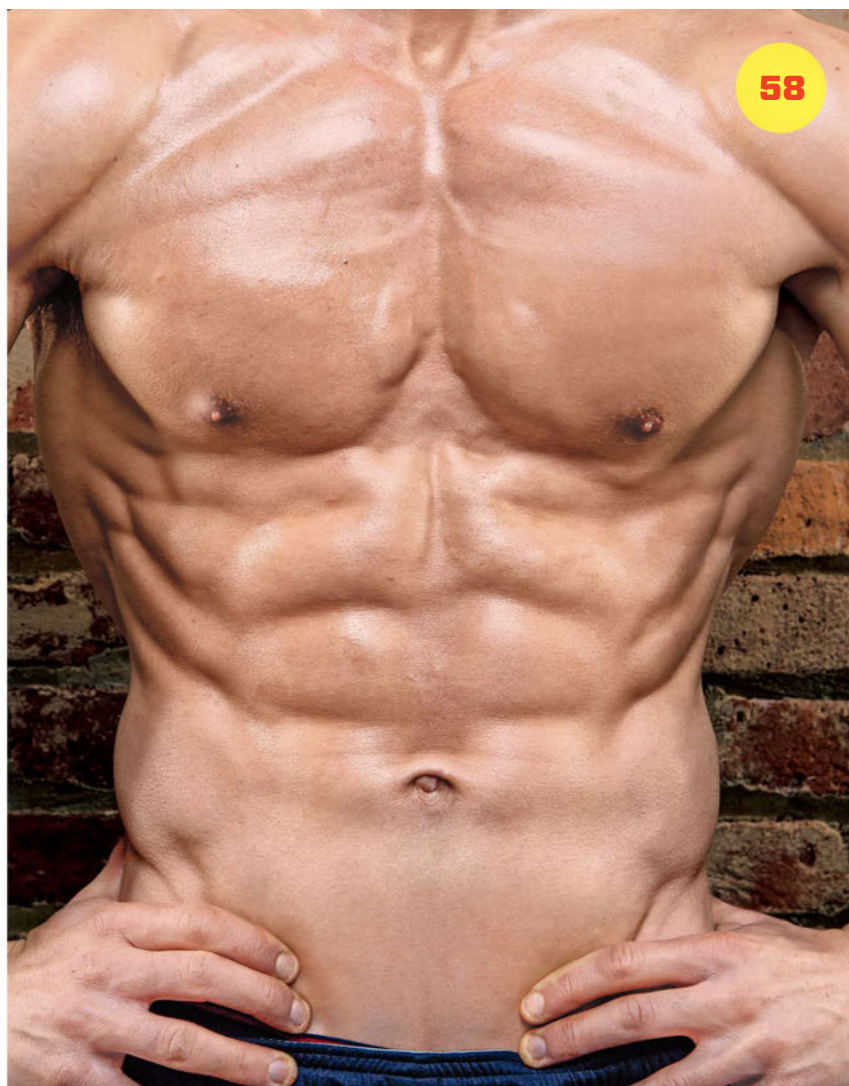
Terry Hollands on switching to powerlifting; the double kettlebell military press for strength; leg training with Michelle Brannan; and whether keto is key to weight loss.

Regulars

14 Welcome

192 Hot Bod

ON THE COVER AND PREVIOUS PAGE:
Vince McMahon
Photographs by Per Bernal





INTENSE WEIGHT LOSS SUPPORT



Hydroxycut Hardcore® Elite is a powerful formula that helps support weight loss when combined with your hardcore diet and training programme. There are no undisclosed ingredient doses, no shady science, and no proprietary blends – just full label transparency, and a precisely dosed core ingredient for a hard-hitting experience that redefines intense.



BECOME A MUSCLETECH V.I.P AT
MUSCLETECH.UK.COM

250MG WEIGHT LOSS SUPPORT DRIVER

In one study, subjects taking this precise combination of rosemary, olive, and kidney bean extract experienced significant weight loss support

100MG L-THEANINE AND THEOBROMA

Featuring 100mg of theobroma and 100mg of L-theanine to help you achieve your training goals

250MG CAFFEINE

A potent dose that could help support increased alertness

6MG 100% RDA PANTOTHENIC ACID

Contains pantothenic acid, which contributes to the reduction of tiredness and fatigue



PUBLISHED IN THE UK BY

WEIDER PUBLISHING LTD.

10 Windsor Court, Clarence Drive,
Harrogate, North Yorkshire, HG1 2PE
Tel: 01423 504516 Fax: 01423 561494

ISSN 0955-1387

ADVERTISING

International Advertising Sales Director

Samantha Lund

e-mail: slund@weideruk.com

To Advertise Tel: 0044 (0) 1423 550848

EDITORIAL

For Editorial and General Enquiries

e-mail: editorial@weideruk.com

DIGITAL SUBSCRIPTIONS

One year (12 issues) £34.99

Download the app at

www.muscle-fitness.co.uk/digital

PRINT SUBSCRIPTIONS

CDS Global

e-mail: weider@subscription.co.uk

One Year (12 issues) £34.99

Western Europe £49,

Rest of the World £69

To Subscribe

Tel: 01858 435346



Sign up for our free monthly newsletter

www.muscle-fitness.co.uk/newslettersignup

We assume no responsibility for returning unsolicited material, including but not limited to photographs, artwork, manuscripts and letters.

Membership on the Editorial Advisory Board does not imply endorsement of any product or service advertised in this magazine. Views expressed in advertisements and editorials are not necessarily those of *MUSCLE & FITNESS* or the Editorial Advisory Board. Reader discretion is advised. Please consult your doctor before beginning any exercise or diet programme, or when making changes in an existing programme if you have any doubts about your health status.

Every care is taken to assure the accuracy of the information in *M&F*, but no responsibility can be accepted for the consequences of actions based on the advice contained herein. Weider Publishing Ltd makes every effort to ensure that the advertising contained in *M&F* is derived from respectable sources. It does not, however, assume responsibility for the advertisements, nor any claims and representations made therein, nor the quality or delivery of the products/services themselves.

Editorial articles relating to food supplementation and sports nutrition reproduced in this issue of *Muscle & Fitness*, are for information purposes only and are not intended to solicit or otherwise promote any commercialised product containing the mentioned supplements. *Muscle & Fitness* is distributed on an international basis. To the extent permitted by law, Weider Publications LLC and its affiliates: Weider Publishing Ltd, Weider Publishing Italia Srl and Mediafit SARL, do not accept liability for the effects of reported supplements or products, legal or illegal or any loss, injury or damage caused by their use. It is the responsibility of the individual to abide by the laws and dosage allowances specific to their country of residence. Always consult a doctor before commencing supplementation or changing dosages. Some supplements may not work effectively outside specific dosage ranges and may potentially cause harm if taken in excess. Not all supplements, combinations of supplements, or dose ranges of supplements may be suitable, safe or effective for everybody.

UK EDITION

Editorial Director John Plummer

Marketing/Web Manager

Andrew Berrie

Production Manager

Suzanne Turmel

Print/Production Co-ordinator

Sarah Patterson

Creative Team

Alice Cockerham, Neil Molyneux,
Steve Pickles, Leigh Shrimpton

Production Team

John Braddick, Ben Gray, Sarah Warner

Features Editor Ben Kenyon

Senior Writer/Online Editor

Matt Turner

Sub Editors

Gillian Ingles, Kathy Tweddle

Online Content Producer

Joanna Green

Regulatory Consultant Mark Gilbert

Advertising Co-ordinator

Martin Denton

Advertising Assistant

Jonathan Booth

Digital/Advertising Assistant

Justin Frickleton

IT and Communications Manager

Jim Sore

Financial Controller

Kevin Howland

Administration Manager

Sandra Opacic

Circulation Director

Patrick Napier

COLOUR REPRODUCTION BY

RW Reprographics Tel: 01924 351 805

PRINTED IN POLAND BY

Quad/Graphics Tel: 0048 22 33 67 093

DISTRIBUTED BY

COMAG Tel: 01895 433600

US EDITION

Executive Vice President/

Group Publishing Director Chris Scardino

Editor in Chief Shawn Perine

Executive Editor Arnold Schwarzenegger

Editorial Adviser Paul "Triple H" Levesque

Managing Editor, Enthusiast Group/Books

Brian Good

Group Training Director Sean Hyson

Group Creative Director Andy Turnbull

Deputy Editor Matt Tuthill

Editor Ben Radding

**WEIDER PUBLICATIONS, LLC
A SUBSIDIARY OF AMERICAN MEDIA, INC.**

Chairman, President &

Chief Executive Officer David Pecker

Founder & Chairman Emeritus

Joe Weider (1920-2013)

Executive Vice President,

Chief Marketing Officer Kevin Hyson

Executive Vice President,

Consumer Marketing David W. Leckey

Executive Vice President, Chief Financial

Officer, Treasurer Chris Polimeni

Executive Vice President,

Chief Digital Officer Joseph M. Bilman

Executive Vice President, Digital Media

Operations/Chief Information Officer

David Thompson

Senior Vice President, Operations

Rob M. O'Neill

General Manager, AMI International

& Syndication Lawrence A. Bornstein

4 New York Plaza, 4th Floor, New York,

NY 10004 USA. Tel: 001 212 339 1900

ADVISORY BOARD

RICH FRONING

The reigning and four-time CrossFit Games champ

GREG GLASSMAN

Co-founder of CrossFit, the world's fastest-growing fitness movement

JIM MANION

Chairman of the IFBB pro league and president of the US National Physique Committee

NICK MITCHELL

One of Britain's leading personal trainers who owns the worldwide Ultimate Performance gym business upfitness.com

MIKE O'HEARN

Former TV gladiator who has won titles in bodybuilding, powerlifting and judo

DAVID SANDLER

One of the world's leading strength and conditioning coaches

TIM ZIEGENFUSS

Sports nutrition and exercise scientist who is chief executive of the Center for Applied Health Sciences

Copyright © (2015) Weider Publications, LLC. Published under license from Weider Publications, LLC. All rights reserved. Reprinted with permission.

'Muscle & Fitness' is a trademark of Weider Publications, LLC. and may not be used or reproduced without the permission of Weider Publications, LLC.



www.muscle-fitness.co.uk



www.facebook.com/musclefitnessuk



twitter.com/musclefitnessuk



www.youtube.com/weiderpublishing

2015 AD

**FREE
SAMPLE PACK!**
TURN TO PAGE 15 FOR DETAILS

Extinction of the Protein Shake Evolution of the Protein Gel



THE GEL THAT DELIVERS
Protein Express

zipvit 
sport.com

**NEW
PRODUCT**

CONTAINS
26g
Whey Protein

ONLY
117
Calories

SRP
£1.99

ONLY AVAILABLE AT
www.ZipvitSport.com

DESTINATION BIRMINGHAM

BODYPOWER is back and looking better than ever



Expert advice
at Bodypower

In 2009, I was among several thousand people at the NEC in Birmingham for a new event called BodyPower.

For years, people wondered whether a fitness and bodybuilding expo would work over here.

The timing didn't seem great: Britain was entering a deep recession and cash was tight. Would exhibitors and fans fork out?

The first day was a modest affair but it was apparent the

organisers knew what they were doing and that BodyPower was going to become a permanent fixture on the calendar.

Over the next two or three years, its growth was little short of spectacular and BodyPower soon became an unmissable festival of fitness and fun.

I have been to every day of every expo and the format hasn't changed much: attract the big names and brands and give visitors a day out to remember. It works, so why tinker with it?

This month sees the seventh instalment of BodyPower from May 15 to 17. Drive to Birmingham and you could meet Mr Olympia Phil Heath, see more amazing bodies than frequent a Brazilian beach, check out the latest fitness trends and pick up a few freebies, all for the price of an entry ticket. What's not to like?

We Brits used to have to travel to FIBO in Germany or the Arnold Classic in America to see the superstars of the physique world. Now they all come to the West Midlands.

If you've been, I suspect that, like me, you'll be back. If you haven't, you should join the exodus to the NEC and see what all the fuss is about. **M&F**

John Plummer
Editorial Director



Pro wheelchair
bodybuilding



FUEL 2 WORKOUTS FOR FREE!*

*JUST PAY £4.99 P&P

To order GO TO
www.zipvitsport.co.uk/sap
 Strictly one per household

EACH FREE* PACK CONTAINS:

ZV CHARGE PRE WORKOUT

(2 SERVINGS)

Potent Pre-Workout formula containing researched supplements, proven to increase performance in short-term high intensity exercise.

SRP £0.75 per serving



FREE

Just Pay
 £4.99 P&P

TOTAL RETAIL VALUE — £21.67!

ZV WHEY PROTEIN GEL

(2 X 70ml GELS)

Strawberry & Cream and Banana Flavour Whey Protein Gel. The UK's first 100% Whey Protein Gel, delivering a massive 26g of Protein Per Serving, rapidly absorbed, great tasting and highly convenient!

SRP £1.99 each

NEW PRODUCT!



ZV9 PROTEIN RECOVERY BAR

(2 X 65g BARS)

Chocolate Caramel & Banana Blueberry flavour, formulated to aid muscle recovery and refuelling. The ZV9 Protein Bar delivers 20g of High Value Whey Protein and 25g of Carbohydrates with a synergistic blend of Vitamins & Minerals. SRP £1.75 each



ZV4 WHEY PROTEIN 80

(2 SERVINGS)

100% premium whey concentrate, delivers 19.5g protein 2g Leucine & 5.2g BCAA's per 25g serving. ZV4 is the UK's best value whey concentrate!

SRP £0.89 each



HIGH STRENGTH OMEGA 3 (30 Softgel Capsules)

Omega 3 is an essential fatty acid sourced from fish oil, rich in EPA & DHA which has been shown to support healthy heart and brain function, reduce inflammation and can even support fat loss. Each capsule provides 330mg EPA & 220mg DHA, one of the highest doses available. Our responsibly sourced Omega 3 guarantee the highest quality fish oils.

SRP £2.99



SPORTS MULTIVITAMIN (30 Tablets)

Zipvit Sports Multivitamin is an advanced multivitamin specially developed for anyone training in sports and fitness, the comprehensive formula helps to maintain optimum nutrient levels. Each serving provides 40 nutrients and antioxidants to support performance in sport and specific micronutrients to support training and fitness.

SRP £4.99



SHAKER BOTTLE

The Zipvit Sport protein blender effortlessly mixes protein and recovery drinks to a smooth and light texture.

SRP £2.99



PLUS A 25% DISCOUNT VOUCHER!
 FOR YOUR NEXT ORDER!

STAND F48
 FREE SAMPLES
 COMPETITIONS &
 BIG DISCOUNTS

SEE US AT

BODYPOWER EXPO 2015
 15TH - 17TH MAY 2015, NEC, BIRMINGHAM
 PUSHING THE BOUNDARIES OF THE BODY'S POWER



zipvit
 sport.com



NEWS, INTERVIEWS AND INSPIRATION

SHE COULD BURY YOU

CAMILLE LEBLANC-BAZINET

is the 2014 CrossFit Games winner—and Fittest Woman on Earth. When she gives lifting advice, you'd better listen.

**AS TOLD TO BRITTANY SMITH
PHOTOGRAPHS BY DUSTIN SNIPES**

ICON

MITCH ADAMS
CROSSFIT REGIONALS & ICON NUTRITION ATHLETE

WHEY
FROM HORMONE FREE
GRASS FED
COWS



USE CODE: MFFITNESS
TO GET FREE NEXT DAY DELIVERY

SHOP | WWW.ICONNUTRITION.CO.UK

ABOUT ICON NUTRITION

As an evidence-based sports nutrition brand ICON Nutrition is about consistently helping athletes, teams and individuals perform at maximum capacity every time they train or compete and recover as efficiently as possible. Our product portfolio is small for a sports nutrition brand but we believe this allows us to focus more on quality, sourcing superior ingredients and having effective dosages in each one of our products. Our development process is constant, we're forever looking at new ingredients, new research and new technology and asking ourselves a simple question: "how can we make this better?".

PHOTO CREDIT | WWW.PETEWILLIAMSONPHOTOGRAPHY.CO.UK



COMING SUMMER 2015
WWW.ICONONLINECHAMPIONSHIPS.COM

THERE'S THIS BARRIER we all put on ourselves, "Oh, I can't do X, Y, and Z because..." and then you give yourself an excuse. I think what changed the most for me is not giving myself an excuse for anything and really taking the blame for the consequences of my actions either positive or negative. That's the first thing that really helped me—having no limitation and believing that nothing can stop me, and then in the workout, it's trying to apply it.

THE BIGGEST MISTAKE you can make is to try to skip some steps. You'll sacrifice a lot of your technique if you just try to lift as much as possible. I think part of the reason I can lift so heavy is not only that I'm strong, but I also move very well, and my technique is dialed in. You need to be able to leave your ego at the door and be willing to take a couple of steps back to perfect your form if you want to move forwards much further.

WHEN YOU CRAVE BAD FOOD wait five minutes, or eat something healthy instead, and most of the time the craving will go away. Often, for me, if I crave something, it's my body telling me it needs that. If I crave fries or pizza, normally it's because I need salt in my nutrition, so I'll try to eat something with a little bit of salt in it without eating fries or pizza. And other times it's just being lazy, right? You're just a little bit tired and lazy, and you feel like if you eat sugar it's going to help you wake up. But it's funny because I would say 99.9% of the time when you eat sugar, you're still not waking up.

THERE ARE TWO TYPES of people—those who are too careful about pace and never get enough out of their workout, and the other type who go way too hard, hit the wall, and then can't do anything after. I definitely think that running helps you know how to pace yourself. You should know how hard to hit a two-minute workout, a four-minute, a five-minute, a 10-minute, a 20-minute, and so on.

SLEEP IS SO IMPORTANT it's almost insane. I think that people should truly sleep their way to the top. I think



people who want to train more by sleeping less are hurting themselves more than anything else. You need to have a good bed; it's something people should invest in.

DOING A ONE-REP MAX or benchmark workout, for me, will be once every three months. They're really not that often through the year because I want to hit those peaks when I'm competing. I think people focus too much on numbers, especially for strength. Trying to do a one-rep max all the time—I don't think it's a good idea. But for benchmark workouts, I do think that you should do them a couple of

times through the year so you can see if you're getting better or not.

IF YOU KEEP DOING THE SAME THING and it's not working, then stop doing it. I think CrossFit is so great because it always varies, so you always need to adapt to something new and you always have a new challenge. I think a lot of people in CrossFit at a point start to focus a lot more on strength, and they hit this plateau where they're like, "Ah, I'm not getting stronger." When you hit your plateau, I think you should go back to varying your routine—and varying it often.

THE STATS

HEIGHT 5'2"	AGE 26	BEST SNATCH 190 lbs	BEST BACK SQUAT 310 lbs
WEIGHT 130 lbs	BEST CLEAN & JERK 230 lbs	BEST DEADLIFT 300 lbs	MAX PULL-UPS (KIPPING) 80

BEPowerful®

NEW!

BEST IS THE NEW STANDARD



BEST PROTEIN™ is the new standard and new leader in whey protein quality and taste. Each scoop is packed with 24 grams of whey protein, utilizing micro-filtered isolates, the purest form of whey, as the primary source.



ADVANCED FORMULA. UNBELIEVABLE FLAVOR.

You can count on the fact that you are getting exactly what you are looking for in each and every serving - high-quality protein and none of the unwanted fillers. If its got a BPI logo on it you can rest assured that what is in the bottle matches what is on the label.



MMA MARVEL

JAMILLETTE GAXIOLA, U.S. reality TV star and one-time Miss Grand Cuba, is used to the spotlight. Now she'll be front and centre in the cage, joining the UFC as an Octagon Girl.

BY BRITTANY SMITH

THE STATS

HEIGHT	RESIDENCE
5'9"	Las Vegas
AGE	WEIGHT
25	120 lbs

M&F: What's the strangest question you've ever been asked in a pageant?

JG: "Since you're representing Cuba, you must be communist. So if you're communist, why do you live in the States?" It's just very simple—if I were a communist, the U.S. would be the last place I would live.

Ever have a Janet Jackson-esque wardrobe malfunction?

In the Philippines, it's very humid. If you sweat too much, those bras that you just tape on, they're not going to stick, and my dress was really loose. It just kind of went *droooooop* onstage, but I had enough time to catch it on my leg before it completely dropped. I

was just trying to manoeuvre to catch it, hold it, make it stick, and just walk it off.

Your favourite UFC moment?

I went to my first fight a year and a half ago. It was amazing. The energy in that building, it's just priceless. The fight that definitely got my attention, though, was the time that Ronda Rousey knocked out Alexis Davis in 16 seconds in the first round.

Ever been in a fight?

In high school, I used to be picked on a lot because I was this tall, awkward, lanky-looking thing, so I was an easy target. You can only take so much, and after a while, something goes off. I was in so much trouble. My mum is this cute little lady, but she runs the house like the military. I wasn't able to see sunlight for a few months.

Are there dos and don'ts for getting your attention?

Be innovative and original in your approach. That's something that will always stand out. And avoid the cheesy pick-up lines. The worst pick-up line I've had the pleasure of receiving was: "Girl, did you fall from heaven? Because you look like Satan!" One of my favourites and probably the most amazing pick-up line I've heard is: "Is your daddy a baker? Because you've got a nice set of buns!"

So what do you look for in a guy?

Actually, a nice set of buns would be good to start with, but the most attractive attribute a man could have is a good sense of humour.

FIND JAMILLETTE ON:

Instagram and Twitter: @JamilletteG
Website: jamillettegaxiola.com

PHOTO BY @BRIANBHAYES/@SHANDREWPR



SPRING TRAINING

Get stronger, recover smarter, and look better with these performance-enhancing gear picks. **BY MARK BARROSO**



1



2



3



4

SMARTER RUNNING
Jordan added more padding to strike zones on the outsole, making it more durable than a typical running shoe.



5

1

HYPERICE VYPER

Charge up the lithium-ion battery and this ludicrously powerful vibrating foam roller will rattle your bones as it massages muscle tightness away.

2

LEATHER LIFTING STRAPS

At 21 inches long and 1½ inches wide, Harbinger's slip-resistant straps are the ultimate version of one of the oldest lifting gear mainstays.

3

HUMANX 40-POUND VEST

Twenty-pound weight vests are common; this 40-pounder is a veritable beast. Adjustable in two-pound increments, it can turn any cardio workout into a war.

4

DOVE MEN+CARE FACE SCRUB

The pumice-formulated face scrub exfoliates dead cells, removes dirt and oil, and moisturises skin for a deep and complete cleanse.

5

FLIGHT RUNNER 2

Attack distance runs and cardio training in style with this lightweight and comfortable cross-training shoe from Jordan.

vplabTM
nutrition

POWERED BY

VP laboratory
PROFESSIONAL NUTRITION

Superb taste

New generation
BCAA's
with L-Glutamine



The essential branched chain amino acids (BCAA's) are the basic material for protein synthesis and may have strong anabolic and anti-catabolic effects. L-Glutamine may increase the benefits of BCAA's by helping promote more efficient muscle growth and recovery. 8:1:1 Leucine - Isoleucine - Valine ratio is designed to maximize the anabolic potential of the muscle tissue. New generation ultra-micronized BCAA's are characterized by perfect solubility, and are designed to aid absorption and maximum effectiveness. Special development and thorough production process allowed to minimize the „regular“ BCAA's bitterness and present a product with an excellent refreshing orange taste.



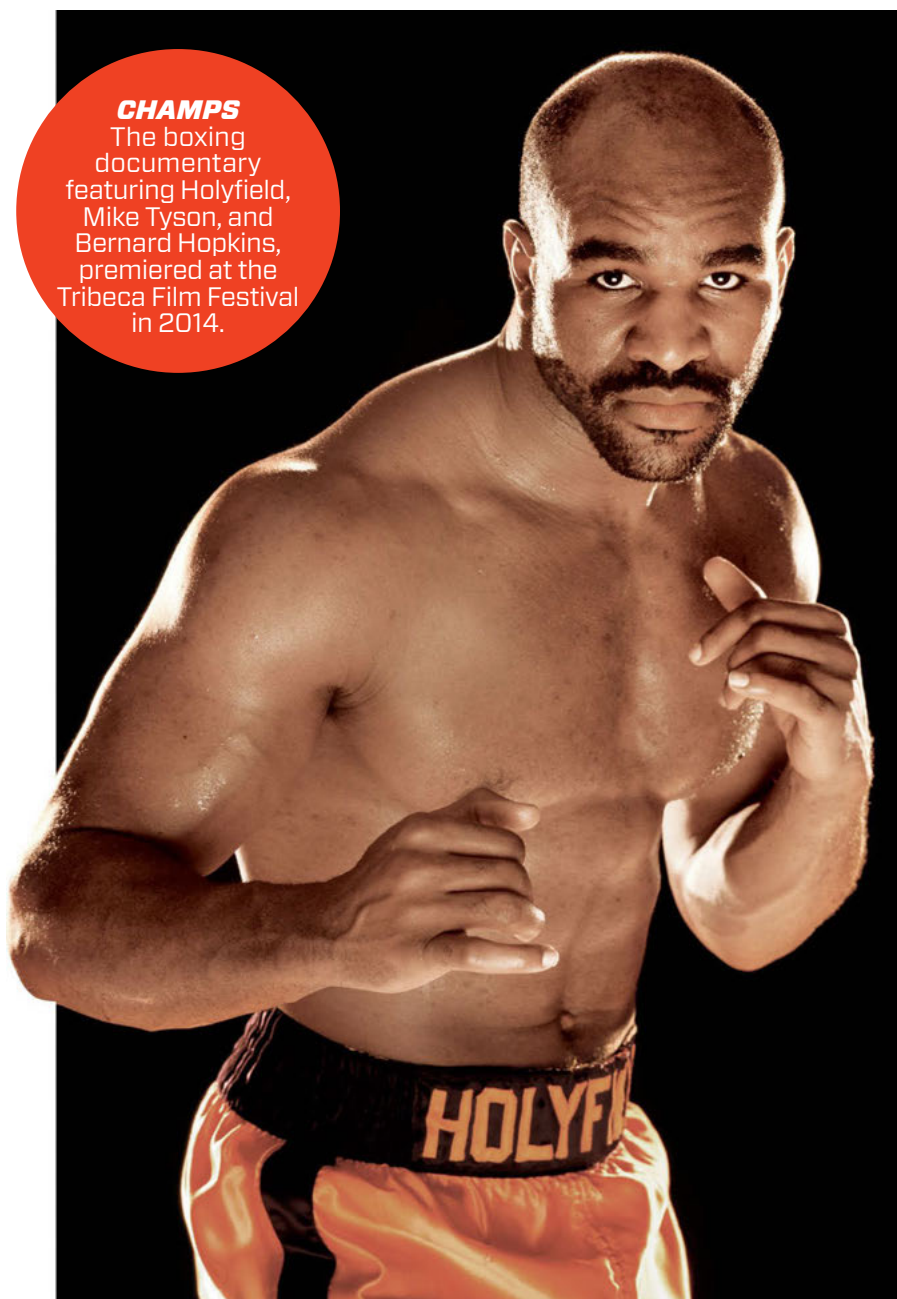
BCAA powder with superior
8:1:1 anabolic ratio
www.vplaboratory.com

REAL DEAL

Five-time heavyweight champion **EVANDER HOLYFIELD** is a boxing legend, and at age 52 he's still up for any challenge. We caught up with Holyfield to talk about training with Lee Haney and his involvement with the new boxing documentary, *Champs*. **BY ZACK ZEIGLER**

CHAMPS

The boxing documentary featuring Holyfield, Mike Tyson, and Bernard Hopkins, premiered at the Tribeca Film Festival in 2014.



What did you learn while training with Mr Olympia Lee Haney in the 1990s?

EH: Before I trained with Lee I would do things in the gym without understanding the operations behind them. By talking about different muscles and what they did, he showed me a whole other side of training. It became an art.

If a newbie asks you for training advice, what do you say?

Don't be lazy, because if you put things off they aren't going to get done. Also, it's not how much you know, it's what you decide to apply. With boxing, I'd say get started while you're young. Adults get embarrassed and quit; that's less likely to happen with kids.

What was your greatest skill as a fighter?

You don't know a person until they're tired. And I realised that if both of us were tired during a fight, the person with the strongest will was going to win. Now, technically, I had an average build. And most of the guys I faced had longer arms, and they may have been stronger than me. But when it came down to will, I felt that if I were able to do a little bit more than my opponent and have the stronger will, I'd win.

How do you train now?

I get up every morning at 6 o'clock. I'll warm up my body, do a few miles on the elliptical, and then do the basic things that I did with boxing. I don't want to be fat. I want to live a long time, and I don't want to depend on somebody else to pick things up for me.

Champs is a raw look at the sport of boxing. What do you want people to take away from it?

That everybody wants to be better, but it's up to him or her to do it. If you are willing to pay the price it takes to be the person you really want to be and you don't allow yourself to quit, it can happen.

LOUIE PSIHUYOS/CORBIS

HOLY HYPERTROPHY, BATMAN!

Silver-screen superheroes have got more muscular through the years, and there's no better example than Batman. With a new film starring Ben Affleck to be released in a year's time, we sat down with **ADAM WEST**, who answered the Batsignal long before Affleck or Christian Bale, to talk about the physical evolution of the Dark Knight. **BY TYLER STEWART**

M&F: One of the most important parts of taking on the role of Batman now is being in great shape. What was it like for you before the days of comic-book summer blockbusters?

AW: I was a bit of a jock growing up. It gave me a certain resilience, coordination, and some kind of muscle power. Playing Batman kept me in shape as well. I didn't have to work out, but I did work out in the gym in Hollywood in some of the lean years before I started doing so much work. It was important to get yourself bulked up a bit.

This was also before the days of widespread serious weight training and bodybuilding.

That's correct. We did our *Batman* in a fun way. It was a comedy on one level, and for the kids. It wasn't serious. It wasn't really necessary to be that muscular in appearance. Now they put [muscles] in the Batman costume, of course. I understand Ben Affleck has bulked up a bit and is working out, which is good. Just to carry that damn costume around takes strength.

Of all the guys who have played Batman so far, who is your favourite to take up the mantle after you?

Oh, I have no favourites. They're all very good. They do their thing, and I did mine. I can't be a critic.



THEN AND NOW: West, above, didn't have to get jacked like Bale, below, but he always had an athletic look.

“Just to carry that damn costume around takes strength.”

If the studio had asked you to do what Christian Bale had to do for the role and put on a ton of muscle, would you have laughed at them? Bale was coming off *The Machinist* and weighed around 120 pounds, and he had to get all the way up to about 220.

There are some actors who don't equate weight loss or gain with fine work. But there are certain roles [for which], if you're really conscientious about it and involved, you have to gain weight or lose weight.

Fad diets, though, have always been a part of Hollywood. Did you ever fall into anything like that?

The diet fads, really, I avoid. I never got into that. If you eat properly and get the right rest and exercise, you'll be fine. I know that sounds a little trite, but it's true. You can stay in pretty good shape.



BODYPOWER BEEFS UP

New attractions and top fitness stars are set to make the seventh **BodyPower expo** the best yet

By Ben Kenyon
Photography by Matt Marsh
& Christopher Bailey

BodyPower is on course to be another record-breaker when it returns to the NEC in Birmingham from May 15 to 17. Last year more than 60,000 people attended and organisers Pioneer Shows are confident of beating that this time.

Britain's biggest sports, fitness and nutrition expo will once again bring together a dazzling array of physiques, competitions and events.

Home-grown stars include IFBB men's physique pro Ryan Terry, Olympic weightlifter Zoe Smith, nine-time World's Strongest Man finalist Terry Hollands, bodybuilder Zack Khan and bikini pro Michelle Brannan.

Mr Olympia Phil Heath, runner-up Kai Greene, former women's physique Olympia champion Dana Linn Bailey and men's physique pro Jeff



England rugby star James Haskell

Seid are amongst the list of US superstars heading this way.

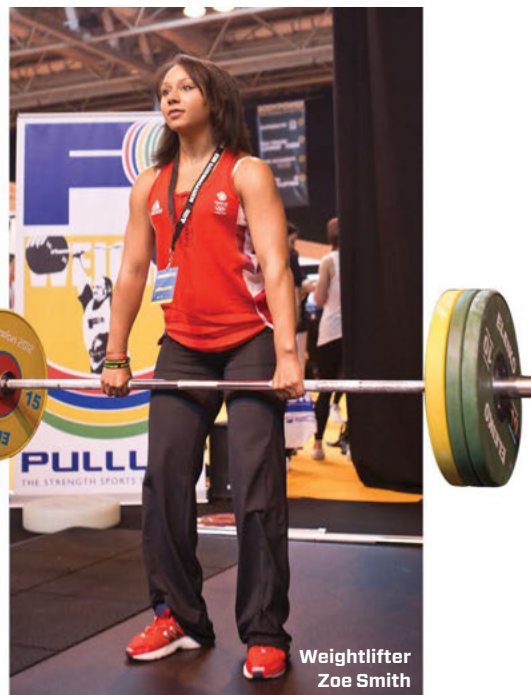
BodyPower gives fans a great opportunity to meet big names like these and take part in challenges or watch a host of events.

Men's physique action





Lee Wade Turner from
Recession Proof Body



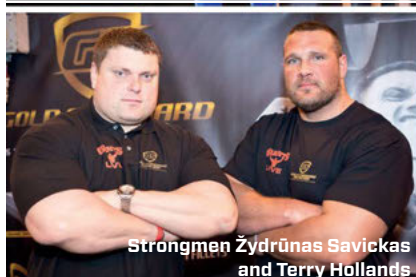
Weightlifter
Zoe Smith



All kinds of demonstrations take place



Weightlifter
Jack Oliver



Strongmen Žydrūnas Savickas
and Terry Hollands



Expect lots of
amazing bodies

This year's highlights include:

- **BodyPower Pro**—an IFBB pro bodybuilding contest with 212 lbs and wheelchair categories for men and figure for women.
- **USN BodyPower Classic**—an amateur physique contest featuring up-and-coming talent from the UK and abroad.
- **Beach Body Area**—learn from the best how to get in shape for summer. Previous speakers include England rugby union player James Haskell and US fitness model Steve Cook.
- **A strongman competition** organised by Terry Hollands and Rob Frampton. Previous competitors have included World's Strongest Man Žydrūnas Savickas.
- **Academy and Super Theatre**—offering expert advice on training and nutrition.
- **Healthy Eating Kitchen**—hosted by TV chef Lorraine Pascale, this will offer interactive cooking challenges.
- **Back to Basics**—a new area for beginners offering advice on everything from anatomy to weightlifting technique.
- **Demonstrations of parkour, gymnastics, weightlifting and a Muay Thai competition.** **M&F**

TRAIN

BUILD MUSCLE, BURN FAT, PERFORM BETTER

ON HIS OWN

JASON POWELL, has created a unique, pain-free training programme that really works.

BY MARK BARROSO



GABRIEL GUZMAN

LOOK HERE FOR HIS ARM WORKOUT

SHOWTIME
Jason Powell
plans to compete
in his first NPC
Men's Physique
competition
in 2015.

JASON POWELL, 41, has many titles: model, genetics lab operator, and scholar, to name a few. But none are more important to him than gym rat. The U.S. Air Force veteran started bodybuilding in his 20s and now follows an eclectic training programme that keeps him lean year-round.

"Instead of four to six weeks of the same style, each session is either heavy, high volume, moderate, or drop sets," Powell says. "I recover faster and train injury-free compared with a linear periodisation routine."

Powell lifts weights five times a week and practises martial arts four times a week. Nutrition-wise, he's designed a custom diet plan, too.

"My diet has not changed in 12 to 15 years," he says. "I eat 48 grams of protein, 60 grams carbs, and 15 grams fat per meal."

Ever analytical, Powell urges younger guys to question convention. "There isn't a single way to perform a lift, because range of motion is unique for everybody. Find the moves and positions that are best for your body."

THE WORKOUT ARMS

Powell does four sets of 12-15 reps per exercise, increasing the weight each set. This is his "moderate" day.

EXERCISE	SETS	REPS
Close Reverse-grip Bench Press	4	12-15
Alternating Dumbbell Hammer Curl	4	12-15
Lying Dumbbell Triceps Extension	4	12-15
Hammer Strength Preacher Curl	4	12-15
Weighted Triceps Dip	4	12-15
Incline Dumbbell Supinating Curl	4	12-15

JASON'S TOP 3 TIPS FOR GUYS OVER 40

1 PRIME THE PUMP

Do one to two extra warm-up sets to help loosen tissue that stiffens with age. You'll pump more blood into the muscles you're training.

2 KEEP YOUR EGO IN CHECK

Don't be unrealistic about your capabilities. If you've never squatted 400 pounds and have back or knee pain, don't set a 400-pound squat as a goal.

3 CHOOSE THE RIGHT EXERCISES

Do 20-25 reps on a lift. If you don't feel it in the muscles you want, change the move until you do.

10-MINUTE TORCHER

Train your chest, back, abs—and get some cardio in—with this quick-hit TRX routine.

WHAT IT IS

A TRX push-pull-core circuit designed by L.A.-based trainer Andy McDermott. Hang a TRX or other suspension trainer from a secure point overhead, then set a timer for 10 minutes. Start the time and complete the following four exercises as a circuit: TRX rows, TRX chest press, TRX knee-ins, and a stair or treadmill run. (See the “How to Do It” box below for rep ranges.)

WHY IT WORKS

The circuit begins with a classic push-pull superset that will work chest, back, biceps, and triceps. Core strength and stabilization are trained with the knee-ins, and an old-fashioned stair or treadmill run ensures your heart rate will stay elevated. “I love this workout because it’s simple but gets all your muscles activated quickly,” McDermott says. “The burn kind of sneaks up on you.”



QUICK TIP

Keep your back flat as you pull your knees into your chest. For an advanced version, do one leg at a time.

HOW TO DO IT TRX PUSH-PULL-CORE CIRCUIT

Perform the circuit for 10 minutes. Don’t rest between exercises.

EXERCISE	REPS
TRX Row	10-20
TRX Chest Press	10-20
TRX Knee-ins	10
Stair Run*	30 sec.

*Can be replaced with a regular run.

OhYeah!

NEW

LOW CARB BAR

100% OhYeah! Taste



CHOCOLATE CHIP COOKIE DOUGH

PEANUT BUTTER PIE

21-22g Protein | Only 1g Net Carb | Under 220 Calories | Gluten Free

available only at www.prometeus.nl



THE CHAMP IS HERE

IFBB Olympia champion **JEREMY BUENDIA** shares how he prepared for his big win and reveals his plans for a repeat in 2015.

BY MARK BARROSO

JEREMY BUENDIA grew up in the gym, learning basic lifts with his bodybuilder dad at age 12. Today, Buendia's methods are more advanced; he uses FST-7 ("fascia stretch training," which emphasises stretching between sets), designed by trainer Hany Rambod.

"FST-7 is seven sets of 8-12 reps with minimal rest," says Buendia. "It optimises blood flow for growth."

Buendia lifts almost daily, taking off only one or two days a month. He does cardio five to six times a week—30 minutes in the morning, then 30 after workouts, which he bumped to 45 minutes before the Olympia. It was tough, but the pressure to repeat, he says, is even tougher. "Knowing everyone is hunting down my title motivates me to work harder this year."

THE WORKOUT ABS

Buendia does this workout twice a week. Rest 2 min. between rounds. Do 5 rounds.

EXERCISE	REPS
Floor Crunch	25
Lying Leg Lift	25
Toe Touch	25
Side Oblique Crunch	25
Bicycle Crunch	40

JEREMY'S STATS

AGE 24

HEIGHT 5'8"

WEIGHT 172 lbs

RESIDENCE:
Sacramento, CA

TWITTER

@MrJeremyBuendia

SPONSORS

Evogen Nutrition,
Live Fit Apparel



THE DIET

To prep for last year's Olympia, Buendia ate 250 grams of protein, 120 grams of carbs, and 40 grams of fat daily.

BILL COMSTOCK

SPEND £10 ON US

NO MINIMUM SPEND - VALID ON EVERYTHING*

We are giving every reader a £10 no minimum spend voucher to use against any purchase* on realnutritionco.com. Supplements start at just £7.99 and your voucher is even valid on all on site offers! Visit realnutritionco.com today.



REDEEM YOUR VOUCHER
www.realnutritionco.com



#TRAINRTC
6 WEEK COMPLETE PACKAGE

Training | Diet | Supplements

POWERED BY
Dave Bell
SPORTESSE -PT

6 WEEK PACK

2Kg Whey, Creatine, ZMA, T-Shirt & Shaker
Plus #TRAINRTC 6 week training plan and diet guide.

~~£90.00~~

£50.00



**CREDIBLE SCIENCE
AWESOME TASTE™**



Muscle Shakes 1.87Kg

All In One Protein Shake (Whey Isolate primary source) + Creatine, Betaine, Glutamine peptides and 25 Vitamins and Minerals

~~£32.99~~ **42.99**

* Voucher valid on all products on realnutritionco.com inc special offers but excludes active foods and not valid against the cost of shipping. Free UK delivery on all orders £40.00 and over, standard delivery is from £2.99. See back of voucher for further terms and expiry date.

FOREARMS, FIXED

Dave P., sent us his forearm routine to review. Here's how we fixed it.

BY ERIC VELASQUEZ

DAVE'S OLD WORKOUT

EXERCISE	SETS	REPS
Reverse Curl	4	10
Wrist Curl	3	20
Wrist Extension	3	20
M&F	5	

OUR ADVICE

The reverse curl is a great exercise, but hammer curls, which allow you to handle heavier weight, will engage more of the forearm musculature. Wrist curls are great for padding the meaty part of your forearm, but the rep ranges were too high to offer any serious benefits. By doing a few heavier sets and then higher-rep sets to finish, you'll get the muscle-building stimulus you need and the forearm-swelling pump you want. Finally, ~~the plate pinch is an underused move for building a can-crushing grip and forearm strength.~~

DAVE'S NEW WORKOUT

EXERCISE	SETS	REPS
Hammer Curl	4	8-10
Wrist Curl	4	8, 8, 10, 10*
▶ Plate Pinch	4	Failure

*Perform one dropset to failure on final set.

PLATE PINCH
This forearm-torching move will add size and help you lift more weight on other exercises.



BEPowerFUL®

NEW!

6 REASONS WHY **BEST** IS BETTER



There's a reason we named it BEST CREATINE™. We confidently believe this is better than any other creatine product on the market. With 6 different advanced forms of creatine all in one formula, this is your professional strength creatine blend for promoting lean muscle, increasing strength and optimizing recovery time.

CREATINE MONOHYDRATE	CREATINE MAGNA POWER®	CREATINE AKG
CREATINE ANHYDROUS	CREATINE PHOSPHATE	pH BUFFERED CREATINE ALKALINE™

THE BEST FORMULA, BEST FLAVOR AND BEST RESULTS.

Don't just take our word for it – pick up a bottle and try it for yourself.

THE WORKOUT Work up to your own body weight and do one unbroken set at that weight until you reach technical failure.

QUICK TIP

Using a fat bar (shown) is easier on the elbows than a standard bar. If you don't have a fat bar, wrap a standard bar in a towel.



HOW TO DO IT THE MOVE

1 APPROACH THE BAR with your feet slightly wider than your hips. Squat down as low as possible, allowing your upper back to relax and round.

2 SLIP YOUR ELBOWS under the centre of the barbell between your legs and squeeze the barbell in the crooks of your elbows.

3 TAKE A DEEP BREATH before you begin the lift. Track the knees out over your toes and try to keep your back from shifting while under tension.

4 DEADLIFT THE BAR to the fully upright position, keeping your core braced throughout the lift. Return it back to the floor in the exact reverse order.

ZERCHER DEADLIFT

Put your deadlifting prowess to the test with this old-time strongman variation. **BY ROB ORLANDO**

YOU ARE PROBABLY familiar with the Zercher squat—the crook-of-your-elbow front squat named after 1930s strongman Ed Zercher. But Zercher's legacy also touched another staple move: the deadlift. His variation of this total-body tussle with gravity evolved from his experience with the squat. Rather than performing a standard deadlift and transitioning the weight to the hands and elbows, he started with the bar on the floor, hunched down as low as possible, arms wrapped around the barbell. An impossible starting position to stand up

with the weight? Not if you buckle down your technique.

This is an exercise for only the most serious of strength athletes. It requires incredible hip, ankle, and lumbar flexibility and a penchant for the primal. Be honest with yourself: if you don't have the mobility to get into the starting position, then this lift is not for you. It's also a surefire sign that you need to add a ton of mobility work to your routine. Exercise extreme caution when loading the weight. Start light, see how your body responds, and take it from there.



I want more growth

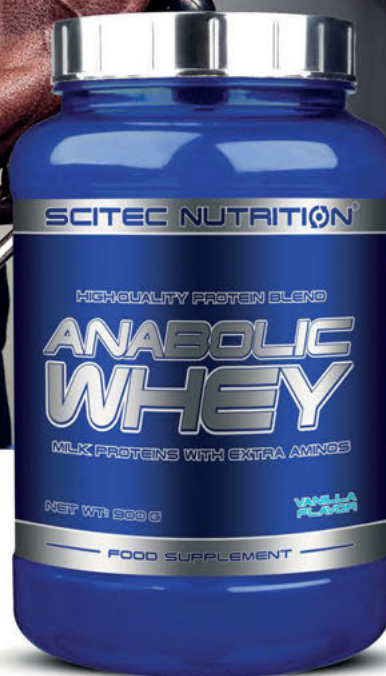
CEDRIC MCMILLAN

- IFBB PRO
- FIBO POWER PRO 2013 CHAMPION
- NEW YORK PRO 2012 CHAMPION
- TEAM SCITEC USA

#iwantmore

Scitec Nutrition's **Anabolic Whey** is a low-fat, low-carbohydrate, high protein shake with additional amino acids and Creatine to help you to build lean muscle mass. Each serving provides 21.5g protein, and 650mg of a creatine and amino acid matrix per serving. Available in 5 delicious flavours: chocolate, vanilla, banana, strawberry, chocolate hazelnut.

Aspartame free



SCITEC NUTRITION®

For retail enquiries please contact us on: 0127 987 4631



ScitecUK



@TeamScitec



@scitec_uk



scitecnutrition.com

BE UNBALANCED

Losing your balance, or rather, fighting to keep it, forces your core to brace your spine. One simple way to train core stability is with weight in one hand while the other is free, as in the off-set loaded lunge. **BY SEAN HYSON**

PROGRAMME TIP

Use the off-set loaded lunge for 6-12 reps after a squat or deadlift variation.

HOW TO DO IT OFF-SET LOADED LUNGE

1 **HOLD A DUMBBELL** in your left hand at shoulder level and stand with feet hip-width apart.

2 **STEP FORWARDS WITH YOUR RIGHT LEG** and bend both knees until the rear knee nearly touches the floor and the front thigh is parallel to the floor. Keep your torso upright. Perform all your reps and then switch arms and legs.

The side holding the weight will want to bend, but your core has to work to keep your torso straight—especially while it's moving during the lunge. Maintaining stability strengthens your abs, while the lunge trains your legs, making this move multifunctional.



NUTRITION RANGE

BLOOD RUSH HARDCORE

CONTAINS CAFFEINE, SCHISANDRA 10 AND L-THEANINE ●

WITH ADDED VITAMINS B3, B6 & B12 ●

ADDED ELECTROLYTE MATRIX TO AID REHYDRATION ●

A highly potent pre-workout formula designed to give you that rush you need heading into an intensive training session.



www.badboy-nutrition.com

*Product to be used with an exercise & training programme

Athlete: Dan Singh



TIP

Perform sets of 15 pull-aparts in between sets of all your pressing exercises. Your upper back will thicken, and you'll be more stable on your presses.

RIP IT

The band pull-apart strengthens the upper back, which can alleviate shoulder pain and reduce the chance of injury. Make it a staple in your workouts and make pain-free gains forever.

BY SEAN HYSON

HOW TO DO IT THE BAND PULL-APART

1 GRASP AN ELASTIC EXERCISE BAND with a shoulder-width grip. Hold it out in front of you at arm's length.

You can pull the band in multiple directions and at different angles for variety.

2 SQUEEZE YOUR SHOULDER BLADES together and pull the band apart so it stretches and your arms are at 90 degrees to your sides. Return your arms in front of you and allow your shoulder blades to spread a bit. Don't lean back as you pull—stay upright with your core tight. Don't shrug your shoulders, and control the negative portion of each rep.

IAN SPANIER

TOUGH MUSCLE

The founder of Underground Strength Gym, **ZACH EVEN-ESH**, will use any means necessary to make gains. **BY MARK BARROSO**

A DECADE AGO, Zach Even-Esh was asked to describe his training philosophy. A devotee of odd-implement training, including sandbags and tractor tyres, he said, "If it produces results, I use it." It wasn't a popular answer then, but he's now known as a man ahead of his time.

"Remember, in 2004, people would say, 'I'm only a kettlebell lifter,' or 'I'm only a strongman.' I said, 'I'm not going to discriminate if it works.'"

The Underground method (see an example at bottom right) involves constantly varied mini cycles with an emphasis on mentally grueling workouts.

"You want some perfect scientific programme? Science happens in a perfect world, and there's nothing perfect about an athlete's life. Train the mind, not just the muscles."

TOP 3 TIPS

1 GO OUT: Don't do gym workouts exclusively. Train outdoors once a week, such as doing a park run with tree pull-ups and stone carries.

2 STICK WITH THE LIFT: If you plateau on a lift, do 2-3 heavy sets, decrease weight by 50%, and do 3 speed sets of 2 reps, then 3 sets of 10-15 reps.

3 GET FOCUSED: Get training partners. If you can't, find things, such as music, that motivate you to lift heavier and kick ass in the gym.



ZACH'S WORKOUT UNDERGROUND STRENGTH

Do 1A-1C as a circuit and 3A and 3B as a superset.

EXERCISE	SETS	REPS
1A) Trap-bar Deadlift	5	3-5
1B) Plyo Push-up	5	3-5
1C) One-arm Kettlebell Clean & Press	5	3 (EACH ARM)
2) Walking Kettlebell Lunge*	3	10 (EACH LEG)
3A) Dumbbell Row	3	10
3B) Band Pull-apart **3		30
4) Prowler Sprint	4	100 ft.

*Hold the kettlebells in the rack position (at the collarbones) and do walking lunges.

**Do 15 overhand and 15 underhand band pull-aparts.



MACHINE PULLOVER

HEAVY DUTY

The principles of **MIKE MENTZER's** high-intensity training
By Greg Merritt

WHEN MIKE MENTZER won the 1976 Mr America bodybuilding title, he was celebrated for his training philosophy as much as his physique. He wrote articles for Joe Weider's magazines, many of which covered specific techniques for intensifying workouts.

Having started working with Arthur Jones in the early 70s, Mentzer expanded on the visionary's HIT philosophy to create his own system—Heavy Duty.

Mentzer's was a heavier form of HIT. While Jones prescribed one 20-rep set per exercise, Mentzer lowered the rep range to six to nine: choose a weight so heavy you reach absolute failure at six to nine reps and then keep going. Failure wasn't enough for Mentzer's Heavy Duty system. It went beyond. The three techniques Heavy

HEAVY DUTY TIP SHEET

- We've included Mentzer's 1979 back workout. After he retired in 1980, he prescribed increasingly lower volume—eventually as few as only one or two all-out sets per body part every two weeks! The workout included here best represents an effective and practical Heavy Duty routine.
- Train with at least one partner. Assist each other in going beyond failure.
- Do your last warm-up with approximately 75% of your working weight and stop before reaching failure.
- Use pre-exhaust supersets. For example, in this back routine, pullovers (which isolate the lats) are done immediately before pulldowns (which work the lats with the biceps and rear delts).



**CLOSE-GRIP
BARBELL ROW**



Duty prescribed most were forced reps, negative reps and rest-pause.

Mentzer trained with at least one partner, who spotted him and assisted when he reached failure. The partner removed just enough stress for two or three forced reps. He helped raise the weight so it could be lowered as slowly as possible. Or he spotted while Mentzer paused between reps, grinding out a few “singles” in a manner known as rest-pause. It’s a system that continues to influence gym-goers and body-builders today. **MAF**

HEAVY DUTY BASICS

- ▶ Go to full-rep failure in the six- to nine-rep range. Try to grow increasingly stronger in this range.
- ▶ Always maintain proper form.
- ▶ Push sets past failure with forced reps and negatives.
- ▶ Rest-pause is another excellent method of transcending failure.
- ▶ Divide your body parts into two workouts and allow 48 hours between workouts. For example, do workout A on Monday, B on Wednesday, A on Friday, B on Sunday (or Monday, if you prefer to take weekends off).

HEAVY DUTY BACK WORKOUT

EXERCISE	WARM-UPS	SETS	REPS
Machine pullover*	1-2	2	6-9**
SUPERSET WITH			
Underhand close-grip row	1-2	2	6-9**
Barbell row	1-2	2	6-9**

*Straight-arm pulldowns or dumbbell pullovers can be substituted

**Push all sets to failure. Then continue with forced reps, negatives and/or rest-pause reps.

CAN CASEIN TASTE GREAT?



...IT DOES NOW!

NEW!



If there is one thing we know, it's great tasting protein. With our 100% Micellar Casein, ***we've done it again!*** Delivering four delicious, natural milky flavours, without the chalky or grainy aftertaste.

- **100% MICELLAR PROTEIN**
- **SUSTAINED RELEASE**
- **EU GRASS FED SOURCE**
- **4 DELICIOUS FLAVOURS**
- **UP TO 24G PROTEIN**

EFFECTIV 100% MICELLAR CASEIN uses only EU grass fed pure micellar casein which is produced through a state of the art membrane filtration process and does not undergo any chemical modification as seen with inferior caseinate products. This process delivers the native milk casein and calcium in its micellar natural protein structure.

The unique properties of Micellar Casein show that it digests slowly providing a steady release of amino acids into the bloodstream, making it ideal for nighttime use or for prolonged periods throughout the day without protein.



Choose from an irresistible selection of flavours to make a delicious high protein shake or create a creamy mousse by mixing it with approximately 150ml or water or milk and chill in the fridge for a minimum of 2 hours.



EAT

FUEL YOUR BODY

FUNGI FACTS

Mushrooms are the very definition of power food: they'll prime your muscles for a workout, help lower cholesterol, and keep you full while you're cutting. Here's how to get the most out of them.

BY CHRIS GIBLIN

MUSHROOMS ARE enjoying something of a renaissance at the moment. As some growers look to cultivate even healthier strains, others look to further explore the medicinal benefits.

You probably won't want mushrooms as the biggest part of your meal unless you go for a portobello burger, but even then, you're bound to take in far more calories eating the toppings, bun, and sides. On that note, a grilled portobello mushroom (about 42 calories) provides a solid source of vitamins and minerals like niacin (36% of Daily Value), which can boost good cholesterol and promotes muscle growth; potassium (18%), which aids muscle contractions; and fibre (11%), which supports healthy bacteria and eases digestion. With five grams of protein and several other nutrients to boot, it offers a pretty significant nutritional bang for your buck.

Raw mushrooms are a great option for salads, but guys who don't enjoy the earthy, rubbery taste

and texture probably need them to be served in some other way.

You could try sautéing mushrooms with onions and adding them to sandwiches or pasta sauce, or adding them into the mix in stir-fries or omelettes. With so many kinds to choose from (shiitake, enoki, oyster, etc.), there's bound to be one mushroom out there for you. Just rinse before prepping it.

QUICK TIP
Mushrooms can help keep you full: 100 grams of sliced white mushrooms is only 22 calories.

THIS WAY FOR A DELICIOUS MUSHROOM RECIPE

BROWN RICE RISOTTO WITH MUSHROOMS, CABBAGE AND THYME

Recipe courtesy of Marco Canora, chef at NYC's Hearth and author of *A Good Food Day*

MAKES 6 SERVINGS

4 tbsp extra-virgin olive oil, plus more for garnish
250 g cremini mushrooms, sliced
Fine sea salt and freshly ground black pepper
1 head savoy cabbage, cut into ½-inch pieces
600 ml mushroom stock
600 ml vegetable stock
2 tbsp unsalted butter
1 onion, diced
370 g sweet brown rice (glutinous)
240 ml dry white wine
50 g freshly grated Parmesan cheese, plus more for garnish
1 tbsp chopped fresh thyme

1. In a large, high-sided frying pan, heat 1 tbsp of the olive oil over high heat. Add the mushrooms and season with salt and pepper. Cook until the liquid released from the mushrooms is gone, 5–7 minutes. Using a silicone spatula, transfer the mushrooms to a bowl and scrape the bottom of the pan to remove and save all the flavourful bits.

2. While the pan is still hot, return it to the hob and add 1 tbsp of the olive oil. Add the chopped cabbage and season with salt and pepper. Reduce the heat to medium-high and cook until the cabbage is wilted and slightly browned, about 10 minutes. Remove the pan from the heat.

3. Pour the mushroom and vegetable stocks into a saucepan. Bring to a boil over high heat, then reduce the heat to a simmer.

4. Place the frying pan back on the hob and heat 1 tbsp of the butter and the remaining 2 tbsp olive oil over medium heat. Add the onion and season with salt and pepper. Cook, stirring occasionally, until the onions soften, about 5 minutes.

5. Turn the heat to high and add the rice. Stir, coating the rice thoroughly with the onion, butter, and oil until the rice is

crackling, 2–3 minutes. Add the wine. Let it bubble, stirring frequently, until the rice absorbs the wine, about 1 minute.

6. Add just enough of the warm stock to cover the rice. Reduce the heat to medium-high and stir occasionally until the rice is almost dry, about 10 minutes. Add just enough stock to cover the rice and stir every couple of minutes, until the stock is absorbed and the rice is almost dry, about 10 minutes.

7. Stir more frequently, continue adding warm stock to cover the rice until it's absorbed, every 4–5 minutes for 10 minutes.

8. Reduce the heat and add the cabbage, mushrooms, and about 60 ml stock. Simmer, stirring constantly, adding stock in

60 ml increments as needed until the rice is just tender and the risotto is a little runny. Take the pan off the heat.

9. Add the Parmesan, the remaining 1 tbsp butter, thyme, and salt and pepper to taste, stirring to incorporate. Taste and adjust seasoning, if needed. To serve, ladle the risotto into bowls and top each serving with more freshly grated Parmesan and a drizzle of olive oil.

PER SERVING

411	12 g	51 g	17 g
CALORIES	PROTEIN	CARBS	FAT



MAYA VISNVEI/STOCKFOOD



STEW ON THIS

Forget *Chicken Soup for the Soul*. This chicken stew will fill your belly and help your muscles grow.

CHICKEN ROPA STEW

MAKES 6 SERVINGS

450 g boneless, skinless chicken thighs
300 ml grapeseed oil
1 red pepper, diced
1 yellow pepper, diced
½ onion, diced
125 g ketchup
1 tsp chicken gravy granules
2 tbsp chipotle peppers, tinned
1 tbsp paprika
1 tbsp smoked paprika
475 ml chicken stock
Salt and pepper

1. Cut the raw chicken into large pieces and set aside.
2. Heat the grapeseed oil in a large sauté pan over medium-high heat. Add the chicken. Sear for 2 minutes, then add the peppers and the onion. Turn down to low heat.
3. In a blender or food processor, combine the ketchup, chicken gravy granules, tinned chipotle peppers, both paprikas, and the chicken stock. Puree. Pour the pureed mixture into the chicken pan, turn the heat up to medium-low, and stir.
4. Allow the chicken stew to slowly come to a slight simmer, then turn the heat down to low. Cover the stew and allow to cook for 20 minutes, checking every 5 minutes to prevent burning.
5. Check the chicken for tenderness. (It should pull apart.) Take all chicken pieces out, shred them, then return the pieces to the stew. Season with salt and pepper to taste.

PER SERVING

387
CALORIES

47 g
PROTEIN

11 g
CARBS

17 g
FAT

ANDREW PURCELL

musclefood

Premium nutrition for healthy living

**FREE TWO 6-70Z
FREE RANGE IRISH
GRASS FED RUMP STEAKS
FREE FOR ALL READERS**

enter code
MAFSTEAKS
at checkout



- No Added Salt or Water
- Matured for 21 Days
- Extra High CLA and Beta-Carotene
- Hand Cut by Expert Butchers

MuscleFood Fans Include:



Carl Froch
WBA/IBF Champion
Super-Middleweight



David Weir CBE
Paralympic Athlete
Gold Medal Winner



Tom Wood
England Rugby
International



Kris Gethin
Celebrity Trainer &
Bodybuilder



/MuscleFoodUK



@MuscleFoodUK



/MuscleFoodUK



/MuscleFoodUK

Scan me



NEW PRODUCTS



Fresh Seafood Range

Salmon Fillets, Swordfish Steaks & Smoked Mackerel

From £3.19 per pack!



Protein Porridge Pots - 22g Protein

Original, Apple & Cinnamon, Apple & Strawberry

Only £2.49 per pack!



Sweet Potato Fries

Skinny, Chunky, with Skin On and Off

Only £2.00 per pack!



Quest Protein Bars - 20g Protein

S'mores, Cookies and Cream & Cookie Dough

From £22.95 per box!

Order at www.musclefood.com/MAFSTEAKS

*2 Steaks free per customer. 1 code per customer per order. Minimum £25 order applies.



BLACK BEANS

Give your diet a healthy boost of protein and fibre with these five delicious eats. **BY GAVAN MURPHY**

1

COOK A SOUP

In a saucepan drizzled with olive oil, cook 1 chopped onion over medium heat for 3 minutes. Add 2 garlic cloves and ½ chopped jalapeño. Cook 3 minutes. Transfer mixture to a blender and blend with 1 tsp cumin and 1 tin black beans. Add to pan. Blend a second tin of beans with 425 ml chicken stock. Add to pan. Stir in third tin of beans and 285- 425 g tinned crushed tomatoes. Boil, then simmer 10-15 minutes.

2

MAKE A TACO

In a saucepan, cook a diced onion in 1 tbsp of olive oil over medium heat until tender. Stir in 425 g of tinned black beans and ½ tsp each of chilli powder and cumin. Reduce heat and simmer 5-10 minutes. Serve with lettuce, tomato, avocado, and salsa in a wholemeal tortilla.

3

PUREE A HUMMUS

Place 425 g tinned black beans, a small handful chopped coriander, 2 tsp lime juice, 1 tsp cumin, ½ jalapeño, and dashes of salt and pepper into a food processor. Puree, gradually adding 2 tbsp water and 2 tbsp olive oil until smooth.

4

GRILL A BURGER

Mash 425 g tinned black beans in a bowl. Add 1 egg, 100 g wholemeal breadcrumbs, ½ cooked onion (diced), 1 tsp each of chives and dried lemon pepper, and dashes of salt and garlic powder. Mix well and form patties. Sear each burger for 3-4 minutes per side.

5

BAKE A BROWNIE

Blitz 225 g black beans, 100 g cooked beetroot, 50 g cocoa powder, 4 eggs, and 3 tbsp wheat flour in a food processor until smooth. Add 240 g maple syrup or honey, 1 tbsp unsalted organic butter, and dashes of vanilla and almond extracts. Blitz again until smooth. Pour batter into a baking dish and bake 20 minutes at 180°C/Gas mark 4, turning it around after 10 minutes.

INCREDIBULK

SUPER WEIGHT GAINER FORMULA

- **1300+ CALORIES!**
- **248g+ CARBOHYDRATES**
- **56g OF PROTEIN**
- **FOUR ABSOLUTELY DELICIOUS FLAVORS**



bodytemple

NASKORSPORTS
DISTRIBUTION, BRAND DEVELOPMENT

PROMETEUS
Intelligent Sports Technology

prosupps.com

*These statements have not been evaluated by the Food and Drug Administration. These products are not intended to diagnose, treat, cure, or prevent any disease.

QUICK TIP

The recipe calls for baked potato. Bake potatoes ahead of time in the oven at 200° for 30–40 minutes.

**SALMON DILL
POTATO
SCRAMBLE**

YIELDS 1 SERVING

85 g salmon filet
6 tbsp liquid egg whites
175 g baked red potato, quartered
4 mini sweet peppers (yellow, red, orange), chopped
40 g raw onion, chopped
4 sprigs fresh dill weed, chopped
1 tbsp fresh coriander, chopped

1. Place a small pan over high heat and, when hot, add the salmon. Cook two minutes and flip over. Cook until salmon is pink all the way through.
2. Warm another small nonstick pan over medium heat and add liquid egg whites.
3. Add the potato, vegetables, and salmon to the eggs. Stir, breaking up the salmon, until the eggs are cooked through.
4. Top with dill, coriander, and, if desired, lemon juice.

NUTRITION PER SERVING

394	33 g	29 g	11 g
CALORIES	PROTEIN	CARBS	FAT

GO FISH

Having fish for breakfast can mean eating smoked salmon on a bagel with cream cheese—tasty, but highly processed and not very gut friendly. Start your morning with this meal, which packs the protein and healthy fats of fresh salmon along with clean carbs and fibre. **BY JILLIAN PACHECO**

BEPOWERFUL®

BEST OF THE BEST



All amino products are not created equal. We've analyzed the competition and nothing compares to BEST BCAA™. Like the name implies, it's the best of the best. The BEST quality, the BEST formulation and the BEST flavor. There's a reason everyone is switching over to BEST BCAA™. Don't take our word for it though – go pick up a bottle and see for yourself.

TRAIN. RECOVER. ENJOY.

EASE UP

In moderation, alcohol can be healthy. But step over the line and you'll wreck your metabolism and pack on the pounds. So how much is OK when you're training hard? **BY CHRIS GIBLIN**

YOU PROBABLY ALREADY

have a decent idea of how many drinks will knock you on your ass and how many you can bounce back from the next morning. But there's also plenty of science out there to measure the potential harm of partying a little too hard. Torey Jones Armul, a spokesperson for the U.S. Academy of Nutrition and Dietetics, specifically points to two studies (done successively in New Zealand in 2009 and 2010) of particular interest to the active man. Both had participants complete a gruelling one-legged workout before knocking back some vodka, then had them repeat the training 36 and 60 hours later. (Results were compared with the same workout on their other legs, with no alcohol involved for the follow-up workouts.) In the boozier version (a rate of about 6.5 drinks for a 200-pound man), the guys performed notably worse in the follow-ups, while lighter drinking (about three drinks for a 200-pound man) yielded virtually no difference in levels of fatigue.

So heavy drinking—even if you're not quite running to vomit the next morning—can throw a spanner in your fitness goals, potentially affecting subsequent workouts negatively for up to three days after. That makes it exceedingly difficult to progress on your fitness goals. On the plus side, up to three drinks in a night shouldn't hurt.

Although alcoholic content is generally the main concern, calorie intake is also notable—realise that there can be a big difference (up to about 100 calories) between light beers

and more robust IPAs, and throwing in mixers drives calories up while bringing the detrimental effects of sugar into the equation. Also, heavy drinking is often capped off with a junk food binge—no one leaves a long night at the bar craving quinoa and vegetables.

Of course, athletes are known for going hard on the drinks at parties, letting their competitive nature get the better of them at their body's expense.

If you're one, try to limit this as much as possible and spend time with people who will respect your fitness goals and support them.

"A serious athlete needs some sort of outlet, and it can be tempting to let go and even bond with teammates [by drinking]—that work hard, play hard sort of thing," Armul says. "But this is definitely ill-advised in the midst of a training period."

“
Heavy drinking
can negatively
affect workouts
for up to three
days later.
”



EVAN SKLAR/STOCKFOOD

supashape

**GAVIN
PERRY**

WBFF Pro Male Muscle Model
& Supashape Athlete

FUEL YOUR HEALTHY LIFESTYLE BEYOND THE GYM



**Muscle
Finesse**

**TROPICANA
FITNESS**.com

www.supashape.com

Supashape products are most effectively used as part of a complete weight loss program, including regular exercise and a healthy, balanced, kilojoule controlled diet.

**PROTEIN FLAN**

MAKES 4 SERVINGS

18 g powdered gelatine
 45 g chocolate whey protein powder
 500 ml of water
 10 g cocoa powder

1. Heat up the water until it starts to bubble but before it comes to a boil. You want it to be hot enough that you can dip your finger in it without screaming out in agony (think drinking-temperature hot).
2. Pour the dry ingredients into a large bowl and add the hot water to them, whisking vigorously until all the ingredients are well combined.
3. Pour into four flan or jelly moulds.
4. Keep in the fridge overnight.

PER SERVING:

68 CALORIES	13 g PROTEIN	1 g CARBS	2 g FAT
-----------------------	------------------------	---------------------	-------------------

FLANTASTIC

Try this ultra-low carb treat to satisfy your sweet tooth and your protein requirements

By Anna Sward

PEOPLE CUTTING DOWN ON THEIR CARB INTAKE OFTEN HAVE TROUBLE FINDING FOODS TO SATISFY THEIR SWEET TOOTH. They

rely on protein shakes for that punch of sweetness but protein shakes can—and do—get boring.

Also, calling them a “dessert” is a bit of a stretch. That’s where this recipe comes to the rescue. Packing just one gram of carbs, it takes care of your desire to sit down, pull out a spoon and enjoy dessert time with virtually no carbs (or calories) involved. **M&F**



GO FURTHER

ALPHA AMINO



**THE POWER TO PERFORM
AND THE FUEL TO RECOVER***



[facebook.com/Cellucor](https://www.facebook.com/Cellucor) // twitter.com/Cellucor // [Instagram @Cellucor](https://www.instagram.com/Cellucor)

*** COMING
SOON**

*These statements have not been evaluated by the Food and Drug Administration. These products are not intended to diagnose, treat, cure, or prevent any disease. Product to be used with a strict diet and training programme.

A close-up photograph of a very muscular man's torso and arms. He is leaning against a brick wall, with his right arm bent and hand near his waist. The lighting highlights the definition of his muscles, particularly the pectorals, abdominals, and arms. A large yellow geometric shape is overlaid in the top left corner, containing text.

**Get huge,
ripped, and
perform better
than ever.**

BY BEN BRUNO
PHOTOGRAPHS BY EDGAR ARTIGA

THE 2015

ROCK



HARD

CHALLENGE

PART I



T HIS YEAR'S ROCK HARD CHALLENGE IS DESIGNED TO GET YOU IN THE BEST SHAPE OF YOUR LIFE—IN A HURRY. YOU'LL GET BIG, LEAN, AND MORE ATHLETIC IN EIGHT WEEKS. YOU'LL TRANSFORM IN SUCH A WAY THAT YOU WON'T EVEN RECOGNISE YOURSELF.

Of course, that's the core promise of just about every fitness programme ever created—past Rock Hard Challenges included. So what makes this programme different? All the stuff most guys avoid—joint mobility and

injury prevention training—has been built right into the programme. It's not lumped together at the beginning or the end, where you'll be tempted to skip it or put it off until another day. It's all there in between sets of the heavy lifting you want to

do, making the most of the time you'd normally be resting and priming your body for a better workout.

"Wait, what? Who cares about mobility work?" you might ask.

We know. Mobility work isn't sexy. People are going to ask you what you bench, not if you can touch your toes. But what if we told you that your lack of mobility work is what's really holding you back in the gym? It's why your plateaus seem to last longer these days and why it's harder to break through them. It's why you don't recover as quickly from a hard training session and why you feel those nagging injuries starting to pile up. It's why you might be able to attack an eight-week mass-building programme, make progress, but feel as if you'd been hit by a car at the end of it. By building mobility and flexibility into the heart of the programme, this year's Rock Hard Challenge doesn't just help you hit short-term goals but sets you up for long-term success without injury or imbalances.

Don't get us wrong: The foundation of this year's Rock Hard Challenge is still strength training. And the most important part of looking like you can deadlift a house is actually being able to do so. By the end of this programme, you'll have plenty of "go" to go along with your "show", giving you the best of both worlds.

We've also structured your strength training in such a way that your heart rate should remain elevated throughout each workout, hence the lack of traditional cardio.

We won't lie to you. This programme is difficult, but it will be worth it—now, and for a long time to come.



PHASE 1
WEEKS 1-4

WORKOUT

DIRECTIONS: Do each workout once per week for four weeks. Perform the warm-up before every workout. Perform any exercises labelled A, B, or C in sequence. Keep rest periods as brief as possible. Note that not every exercise in a given superset or triset calls for the same number of sets. For any unique exercises not shown, refer to the exercise glossary at the end of this article.

STATIONARY SPIDERMAN

From a push-up position, step your right foot forwards underneath your shoulder and drop your right elbow inside your right knee; your left foot and hand will remain on the floor. Press your right elbow outwards to stretch your right leg. Hold for five seconds, then repeat on the opposite leg.

WARM-UP

DIRECTIONS: Do all five exercises as a circuit, resting 90 seconds to two minutes after scapular push-ups. Repeat the circuit a second time.

EXERCISE	REPS
Squat-to-Stand	10
Alternating Lunge	5 each side
Lateral Lunge	5 each side
Stationary Spiderman	
Spiderman	5 each side
Scapular Push-up	10



SQUAT-TO-STAND

Squat down to grasp your toes with your hands. Don't just touch your toes; wrap your hands so that the tips of your shoes are in the palms of your hands. Stand up without shifting position. You'll feel a deep stretch in your glutes and hamstrings. Hold the top position for a second, then drop back down into a deep squat and repeat for a set of 10.



DAY 1

LOWER BODY

EXERCISE	SETS	REPS
A1. Trap-bar Deadlift	4	8
A2. Kneeling Hip Flexor Mobilisation	3	10 each side
B1. Bulgarian Split Squat	4	8 each side
B2. Ankle Mobility	3	10 each side
B3. Side Plank	3	30 sec./each side
C1. Single-leg Hip Thrust	3	8 each side
C2. Sumo Squat Stretch	3	20 seconds
C3. Goblet Squat	2	10



SINGLE-LEG HIP THRUST ▲

Sit on the floor and brace your upper back against a bench. Fully extend your right leg, then press your left foot into the floor to extend your hips. Hold the top position for a second, then return to the floor. Perform equal reps each side.



TRAP-BAR DEADLIFT ▲

Load a trap bar (also known as a hexagonal, or hex, bar) and step into the centre. Drop your hips to grasp the handles. Keep your back flat as you engage your glutes, hamstrings and quads to stand up. Keep your back flat throughout the move and fully extend your hips in the top position. The trap-bar deadlift is considered a safer alternative to the standard deadlift because the load is balanced evenly around the body instead of hanging in front of the body.



Chris Foster
LA Muscle Athlete

"Protein is protein, right?"
WRONG



- 100% natural
- No artificial additives at all
- 48g pure whey protein per serving
- CFM processed for highest quality
- Six delicious flavours
- Instant mixing
- Anti-water-retention



lamuscle.com | Freephone: 0800 328 2345

*Complimentary Testosterone 250 only available when purchasing LA Whey Gold 2.2kg. First 500 customers only



DAY 2

UPPER BODY



EXERCISE	SETS	REPS
A1. Chin-up*	4	Failure
A2. Scapular Wall Slide	4	10
B1. Flat Dumbbell Bench Press	4	8
B2. Stability Ball Rollout	3	10
B3. Face-pull	3	10
C1. Feet-Elevated Push-up	4	Failure
C2. Alternating Dumbbell Curl	3	8
C3. Reverse Crunch	3	12

*If you can't do chin-ups, substitute lat pulldowns for four sets of eight reps.

FEET-ELEVATED PUSH-UP ▲

Set your feet on a bench or plyo box about 12–18 inches off the floor. Set your hands slightly wider than shoulder-width apart on the floor and perform push-ups. Keep your core tight so that your body forms a straight line from your shoulders to your ankles. Go as low as you can on each rep.

STABILITY BALL ROLLOUT ►

Kneel on the floor in front of a large stability ball. Press your palms together, set your hands on the ball and lean into it. Your hips should be at 90 degrees in the start position. Lean forwards to roll out, extending your hips as far as you can. Flex your abs, lats and shoulders as you pull back to the start position.





#FREAK MODE

**ANTH
BAILES**

"The FREAK"

IFBB PRO &
PHARMAFREAK Athlete



FOR UK AND EUROPEAN TRADE ENQUIRIES,
CONTACT BODY TEMPLE ON 01782 281222.
EMAIL: INFO@BODYTEMPLE.CO.UK

AVAILABLE AT

**HARD CORE GYMS, PROGRESSIVE
SPORTS NUTRITION STORES &
LEADING ONLINE RETAILERS**



Use PharmaFreak products in conjunction with exercise and sensible diet to achieve optimal results.

PHARMAFREAK

PHARMAFREAK.COM



DAY 3

LOWER BODY

EXERCISE	SETS	REPS
A1. Goblet Reverse Lunge	4	6 each side
A2. Sumo Squat-to-Stand	3	8
B1. Stability Ball Leg Curl	4	10
B2. Leg Lower	3	8
B3. Pallof Press	3	8 each side
C1. Single-leg Box Squat	3	6–8 each side
C2. Glute March	3	8 each side
C3. Kneeling Hip Flexor Mobilisation	3	10 each side



SINGLE-LEG BOX SQUAT ▲

Set up a bench or plyo box directly behind you—it should be high enough so that your knees bend 90 degrees when you sit. Extend both arms in front of you for balance, then extend your left leg in front of you. Sit back on the box, come to a complete stop, then stand up, pushing through your right heel. Perform equal reps on each leg.

STABILITY BALL LEG CURL ◀

Lie on your back with your heels resting on a large stability ball. Rest on your traps and shoulders with your hips off the ground, your body in a straight line. Dig your heels into the ball and pull it towards your body until your knees are at 90 degrees. Slowly extend your legs to return to the start position.

BOSS IT



Push it harder than it pushes you.
Walk in. Tear it up. Walk away.

#BOSSIT then prove it @SCIMX



SCIMX
NUTRITION
you at your best



DAY 4

UPPER BODY

EXERCISE	SETS	REPS
A1. Single-arm Overhead DB Press	4	6 each side
A2. Renegade Row	3	8 each side
B1. Inverted Row	4	8
B2. Incline DB Press	3	10
B3. Scapular Wall Slide	3	10
C1. Close-grip Push-up	3	Failure
C2. Incline DB Curl	3	8 each side
C3. Plank	3	30 seconds

INCLINE DUMBBELL CURL

On an incline bench set to 45 degrees, perform supinated dumbbell curls, alternating arms each rep. Your palms should make a full rotation from the bottom of the movement to the top. The biceps are not just responsible for elbow flexion but also partially responsible for forearm rotation, so you'll get a little extra mileage out of the twisting movement of these dumbbell curls.



RENEGADE ROW

Hold a pair of dumbbells and get into a push-up position, supporting your body on the handles. Brace your core and support your body with your right arm as you row the left dumbbell up to your shoulder. Return to the start position under control, then repeat with the opposite arm. Try to keep your hips level and don't round your back. This move is as much about building core strength as it is a lat builder.



EXPLOSIVE ENERGY

C4 PRE-WORKOUT



**NOW FEATURING THE LATEST
INNOVATION OF ENERGY: TEACOR™**



[facebook.com/Cellucor](https://www.facebook.com/Cellucor) // twitter.com/Cellucor // [Instagram @Cellucor](https://www.instagram.com/Cellucor)

*** COMING
SOON**

*These statements have not been evaluated by the Food and Drug Administration. These products are not intended to diagnose, treat, cure, or prevent any disease. Product to be used with a strict diet and training programme.



DAY 5

TOTAL-BODY BARBELL COMPLEX

DIRECTIONS: Perform all six exercises in succession without putting the bar down. Start with 65 pounds for the first set and adjust accordingly for each additional set.

In Weeks 1 and 2, perform three rounds of the complex. In Weeks 3 and 4, perform four rounds of the complex.

EXERCISE	REPS
1. Hang Clean	5
2. Reverse Lunge*	5 each side
3. Push Press	10
4. Back Squat	10
5. High Pull	10
6. Romanian Deadlift	10

*Using a front-squat grip on the bar.



HANG CLEAN

Load a barbell (preferably with bumper plates) and hold it with a wider-than-shoulder-width grip. Let it hang at your knees. Stick your hips out to load the move (1), then explosively extend your hips, shrug your shoulders, pull with your arms, and rise onto your toes (2). Gently receive the bar at your shoulders (3).



ABOUT THE TRAINER

Ben Bruno is an L.A.-based celebrity trainer. Learn more from him at benbruno.com.



B

BRACHIAL

THE LIFESTYLE COMPANY

WWW.BRACHIAL.CO



AVAILABLE FROM...

UKSupplements
Sports Nutrition & Clothing

www.uksupplements.co.uk

**BODYBUILDING
CLOTHING UK**
www.bodybuilding-clothing.co.uk

www.bodybuilding-clothing.co.uk

**EXTREME
NUTRITION**

www.extremenutrition.co.uk



NUTRITION

EATING FOR A RIPPED BODY

EATING SIX TO seven meals on a rigid schedule, as many bodybuilders and physique competitors do, does work, but it's needlessly time-consuming for most guys. Your fitness and eating plan should enhance your life, not control it. Unless you're a competitor yourself, it shouldn't be your sole or primary focus.

This eating plan will be centred on the old-fashioned three square meals a day—breakfast, lunch, and dinner—plus a post-workout shake and additional snack (optional). This allows you to have slightly bigger and more satisfying meals than if you were to consume six to seven meals in a day, and it allows for a more normal social life. It also makes the plan usable regardless of what time of day you train; just eat your three regular meals and consume your post-workout shake soon after your workout.

On off days, eat the same, but skip the post-workout shake.

The main thing to focus on is getting in your protein. Shoot for one gram of protein per pound of your goal body weight. Assuming your post-workout shake is 40 grams of protein, take your body weight, subtract 40 from that number, and then divide that number by three to figure out your protein needs in each meal.

If your target body weight is 190 pounds, you'd want to eat approximately 50 grams of protein per meal, plus the 40 grams of protein in your shake.



Good sources of protein for breakfast include:

- Whole eggs (don't be scared of the yolks)
- Greek yogurt
- Cottage cheese
- Turkey bacon

Good sources of protein for lunch and dinner include:

- Chicken
- Fish
- **Beef**
- Turkey
- Lean pork

Protein powder can also be consumed during meals for additional protein or for convenience.

Aside from a hearty serving of protein, the rest of any meal should be composed of a clean carb source and a healthy fat. You should also try to eat a lot of vegetables in at least two of your meals.

Good fat sources include:

- Whole eggs
- Avocado
- Nuts
- Fat from meat sources

Good carb sources include:

- Fruit
- Potatoes
- Sweet potatoes
- Rice (brown or white)
- Oats
- Quinoa

TITAN

www.ironscience.co.uk
0844 544 7992

Richard Wall
UKBFF Pro

- High Biological Protein
- Added Glutamine
- Low in Fat & Carbs
- High Protein



5kg
RRP £69.99
Our price
£31.99

- Over 200 products
- Lowest prices in the UK
- Price beater guarantee

- Premium quality guarantee
- Regular web giveaways
- FREE NEXT DAY DELIVERY

(UK Mainland only)





PHASE 1
WEEKS 1-4

NUTRITION

Sample Day of Eating A

Breakfast

- 4-egg omelette with 50 g broccoli and ½ avocado
- 1 piece of fruit
- 125 g porridge
- 200 g Greek yogurt

Lunch (Optional)

- 200 g salad with 125 g chicken, and 30 ml olive oil
- 175 g quinoa

Dinner

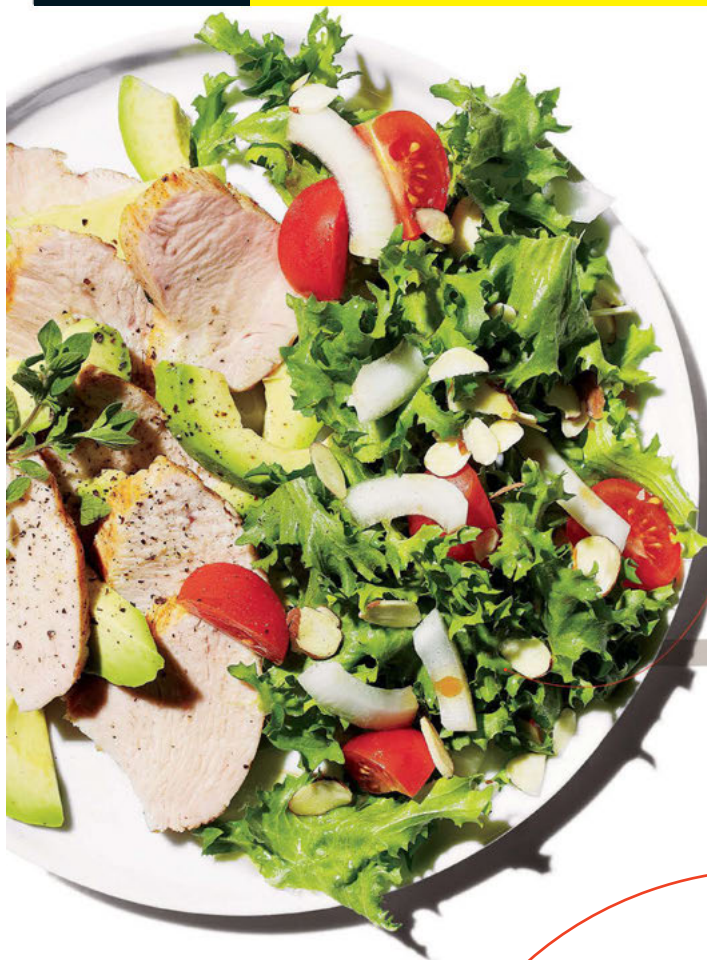
- 1 large salmon fillet
- 100 g broccoli
- 1 potato or sweet potato

Snack

- 125 g almonds

THE MACROS

2,650 CALORIES	180 g PROTEIN
190 g CARBS	130 g FAT



Sample Day of Eating B

Breakfast

- Smoothie with 1 scoop of protein powder, 60 g chopped apple, and 125 ml almond milk
- 200 g Greek yogurt

Lunch

- Wrap with turkey and avocado
- 2 hard-boiled eggs
- Small side salad (100 g)

Dinner

- 225 g rump steak
- 100 g broccoli
- 75 g rice

Snack (Optional)

- 125 g beef jerky

THE MACROS

2,550 CALORIES	210 g PROTEIN	190 g CARBS	100 g FAT
-------------------	------------------	----------------	--------------





UNIQUE MOVES
NOT SHOWN

EXERCISE GLOSSARY

ALTERNATING LUNGE: Take one long stride forwards and drop your back knee close to the ground. Push back to the start position through your front heel, then repeat with the opposite leg.

LATERAL LUNGE: Take one long stride sideways, leaning into the lead leg. Push off the lead leg to return to the start. Perform equal reps on each leg.

SCAPULAR PUSH-UP: Get into a push-up position with your elbows locked out. Lower and raise your body by retracting and then rounding your shoulder blades. The full range of motion is only a few inches.

KNEELING HIP FLEXOR MOBILISATION: Drop to one knee and push your hips forwards, stretching your hip flexor on the rear leg. Hold for two seconds.

BULGARIAN SPLIT SQUAT: Set one foot behind you on a bench or plyo box and hold on to a pair of dumbbells. Bend your front knee to lower your body as far as you can. Push through your front foot to return to the start. Repeat for equal reps on each side.

ANKLE MOBILITY: Place one foot at the base of a wall. Keeping your heel down and your toes against the wall, bend your knee and push it closer to the wall so you feel a stretch on the calf and ankle.

SIDE PLANK: Lie on your side, propping yourself on your forearm. Brace your abs and obliques to keep your body in a straight line. Hold for time and repeat for equal time on the opposite side.

SUMO SQUAT STRETCH: Set your feet wide and point your toes out. Drop into a low squat with your hands together, pressing your elbows against your knees. Hold the position for 15–30 seconds.

GOBLET SQUAT: Hold a single dumbbell vertically at your chest with both hands, your palms supporting the underside of the top bell. Squat low, then drive through your heels to stand back up.

SCAPULAR WALL SLIDE: Stand with your back against a wall with your arms raised and also against the wall. Your hands should be level with your head. The start position will resemble a W, with your head in the middle. Raise your hands above your head as far as you can reach without pulling your hands away from the wall. Hold the finish position—in which your body will resemble a V—for two seconds. This is a key exercise for shoulder mobility and injury prevention.



FACE-PULL: Attach a rope handle to a high pulley and hold the ends in each hand. Pull the rope towards your face, flaring your elbows out to your sides.

REVERSE CRUNCH: Lie on the floor with your feet in the air, your knees bent to 90 degrees; your lower legs will be parallel to the floor, your upper legs perpendicular. With your arms crossed in front of you, squeeze your abs as you sit up as high as you can. Hold the top position for a second before returning to the start.

GOBLET REVERSE LUNGE: Hold a single dumbbell vertically at your chest with both hands, your palms supporting the underside of the top plate. Take a long stride backwards, dropping your back knee to the floor. Drive through your front foot to stand back up.

SUMO SQUAT-TO-STAND: Set your feet wide, squat low, and grab your toes with your hands. (Your palms should be in contact with the tips of your shoes throughout the move.) Stand up while keeping your hands in place.

LEG LOWER: Lie on your back with your hands under your hips and your legs fully extended and perpendicular to the floor; your body will form a 90-degree angle. Slowly lower your legs, squeezing your abs as you do. (This should take about three seconds.) When your feet touch the floor, quickly raise your legs back up.

PALLOF PRESS: Set a cable pulley to shoulder level and attach a single D-handle. Hold the handle with both hands at your chest and step laterally away from the machine so the weight stack rises. Press the weight out in front of you, hold it for two seconds, then bring it back to the start position.

GLUTE MARCH: Lie on your back and dig your heels into the floor to bridge your hips up.

“March” in place, lifting one knee as close as you can to your chest on each rep.

SINGLE-ARM OVERHEAD DB PRESS: Stand holding a heavy dumbbell in one hand at your shoulder. Press it overhead, bracing your core as you do. Do equal reps on each side.

INVERTED ROW: Set a barbell on the spotter bars of a power rack about two feet off the ground. Lie under the bar, grab it with an overhand grip, and pull your chest up to the bar, keeping your heels on the floor and your body in a straight line.

INCLINE DB PRESS: Set a bench to 45 degrees and lie back on it, holding a heavy pair of dumbbells. Rotate your palms slightly in to your body. Press up to a full lockout on each rep.

REVERSE LUNGE: Hold a pair of dumbbells at your sides and take a long stride backwards, dropping your back knee close to the floor. Drive through your front foot to come back.

PUSH PRESS: Hold a loaded barbell in the rack position at your collarbones. Flex your hips and knees to dip down, then explosively extend both as you drive the bar upwards to a full lockout overhead.

HIGH PULL: Hold on to a loaded barbell with an overhand grip; let it hang by your waist. Flex your hips and knees to dip down, then explosively extend both, pulling with your arms to get the bar under your chin.

ROMANIAN DEADLIFT: Hold a loaded barbell with an overhand grip; let it hang by your waist. Flex your hips and stick your butt out as you lower the bar as far as you can. You'll feel a stretch in your hamstrings at the lowest point. Return to the start. **MSF**

TRUE INGREDIENTS FOR TOP RESULTS AND HEALTH

UNIQUE IN EUROPE

A PERFECTION,
A DREAM FOR ATHLETES

FROM PRODUCER TO CONSUMER,
SALE BY E-SHOP
WWW.MUSCULI.COM

TRUE QUALITY,
YOU ARE WORTH IT !

Musculi is:

- ✓ Top quality products for demanding athletes
- ✓ Transparency and top products
- ✓ Products monitored by WADA registered laboratory
- ✓ Manufactured according to the latest standards:
GMP | HACCP | ISO22000 | FSSC22000

Whey concentrate
Whey hydrolysate
Pre workouts
BCAA's
Vitamins

Whey isolate
Mass Gainers
Post workouts
Weight management
and others...

...all available on the webshop:

WWW.MUSCULI.COM

E-SHOP
ORDER ONLINE
www.musculi.com





MUSCULI®

TRUE INGREDIENTS FOR TOP RESULTS AND HEALTH

Nickolas Richard
Musculi Athlete

MOST MUSCULAR:
Vince McMahon
will be 70 years old
in August. He's
been weight
training for 55
years.



WWE McMAHON

The WWE's chairman is still making gains at 69 years old. Will you be?

BY SEAN HYSON /// PHOTOGRAPHS BY PER BERNAL



ULK HOGAN. BRET HART. "STONE COLD" STEVE AUSTIN. THE ROCK.

They're names you grew up with (or have grown old with), and you can't imagine sports entertainment—or even television, for that matter—

without them. And you have one man to thank for letting them entertain and inspire you all these years, even though you may hate to admit it: Mr McMahon.

Vince McMahon, of course. Chairman and CEO of WWE and the man who recast pro wrestling from

a fringe pseudo-sport into a family-friendly sports-entertainment phenomenon that millions of fans now enjoy around the world. Though he has long played a despicable corporate tyrant on WWE broadcasts, the real McMahon has stayed true to his humble roots and, very visibly, his love of weight training. Verging on 70 years old, he's 240 pounds and hovering at 5% body fat, and he's not about to trade the weight bench for a rocking chair. Read how he's training after more than 50 years in the iron game, and see if you can keep up!

M&F: What got you interested in weight training?

McMAHON: I was 14 and Steve Reeves had just done *Hercules*. I was motivated by him. He had an amazing physique. Also, Dr Jerry Graham, who was one of my dad's premier performers back in the day [Vince McMahon Sr owned WWE (then WWF) prior to Vince taking control], gave me my first set of weights. I remember the name of the company that made them—Healthways.

You've trained with some of the Superstars over the years. Can you tell us a story about one of those times?

I trained with Mark Henry once. We were training back that day, and the World's Strongest Man could not keep up.

We spoke to Henry recently, and he mentioned that you gave him a pretty good beating.

[Laughs] First of all, when you're my age, you need to have a few tricks up your sleeve. I showed up, and Mark was full of adrenaline, ready to train, and couldn't wait. I went to my locker room and stayed there. I read, did some business, and an hour later I came out. By the time I came out, Mark's energy and enthusiasm had waned considerably. From a psychological standpoint, I tried to gain an advantage there and did.

And Mark is a strongman type of lifter—one and done, or two reps. I was very deferential to Mark in the first giant set we went through. But in the second one he was green around the gills. That's when I started saying, "The World's Strongest Man is not doing too well at the moment." By the end of the workout, I was all over him. "Come on, Mark! I'm 60-something years old, and you're



SPORTS ENTERTAINER: McMahon wrestled in his school days and served as a commentator on his own broadcasts.

the World's Strongest Man!" Psychologically, I pretty much decimated him on that last giant set. I almost felt sorry for him, but he challenged me. That was a fun day for me.

You've always been a very physical guy, but people were surprised that you decided to take part in gruelling WWE matches for the first time when you were in your 50s. Had you been practising

falls for years, or did you have to learn to be a WWE athlete almost overnight?

I always wanted to be an in-ring performer, and my dad, who preceded me, wouldn't allow me to because he felt you couldn't be an objective businessman and a performer at the same time. It was something I wanted to do, and the opportunity just presented itself. Quite frankly, I had not trained in the fundamentals. I knew how to

OUR MOST ADVANCED CLEAN SENSORY PRE-WORKOUT EXPERIENCE

Engineered with 7 premium ingredients, it's unlike anything you've ever tried. The unique, clean formula was designed to help you shatter your personal records and workout plateaus! #Shatter™ SX-7 truly does work!

- **Peak ATP® (adenosine 5'-triphosphate disodium):** Hard-training subjects who supplemented with Peak ATP® experienced serious results.
- **Myristica fragrans:** Nutmeg, a seed that contains an ancient, premium ingredient called myristicin.
- **Sacred lotus seed extract:** An exotic plant that works synergistically with caffeine.
- **Holy basil (as Ocimum tenuiflorum):** An adaptogenic herb that contains ociglycoside I, rosmarinic acid, and triterpene acids such as oleanolic and ursolic acid.
- **Beta-alanine:** Shatter™ SX-7™ delivers a 1,200mg dose of beta-alanine.
- **Grains of Paradise:** Shatter™ SX-7™ contains the pungent compound 6-paradol.
- **Caffeine:** Shatter™ SX-7™ provides a dose of stimulant caffeine that contributes to alertness, attention, endurance and performance.

NEW
SUPER-EXTREME
PRE-WORKOUT



BECOME A MUSCLETECH V.I.P. AT
MUSCLETECH.UK.COM



do it; I'd just never done it. All of a sudden I was an in-ring performer and a producer and director. It was difficult to do it all, so my dad was right. But it was so much fun.

I did what we call “working close”—I connected every shot with my adversary in the ring so as not to make him look bad. And likewise I knew I couldn't sell what they were doing to me unless I could feel it, so I asked them to lay it in, too.

Did you worry for your safety?

I did. No one else did! Who in God's name would get in the ring at 50-something years old? But I've never asked any of our performers to ever do anything I wouldn't do. And I've done a lot through the years. [Getting in the ring] wasn't something I planned; it just sort of evolved. It started with Bret Hart and then went into the Stone Cold situation. Mean old egotistical executive picking on working-class “Stone Cold” Steve Austin. It was easy for me to do.

What led to the shaping of the Mr McMahon character, and

“Come on, Mark! I'm 60-something years old, and you're the World's Strongest Man!”

where does that villainy come from?

I grew up dirt poor. When you're in that class, a lower economic class, everyone is, quote, “above you.” And there were a number of individuals who thought they were above me because of their economic situation. It always bugged me that people would think they were better than me. I developed a philosophy that no one's better than me, and at the same time I'm no better than anyone else. Even though I am one, I don't associate with rich people, generally speaking. I don't belong to country clubs. It was easy for me to feel that Mr McMahon character psychologically.

As far as being mean, my background is a varied one. I had a violent stepfather. It was easy for me to feel what that was like. Really,

BUTTING HEADS: Nearing what would be retirement age for most men, McMahon was actively performing with the likes of Hulk Hogan.

I'm more like “Stone Cold” Steve Austin—I'm the common man. To this day I am. I drive a nice car and what have you, but I think one of the keys to WWE's success, quite frankly, is that I remain who I am.

Do you think growing up like you did gave you a certain anger that made you push your body harder?

I wouldn't say it was anger, but I find the gym to be a socially acceptable way for me to rid myself of this superaggression that I have. I think it's just naturally there. I don't think it's necessarily a result of the environment that I lived in. I think it's more genetic than anything else. Training is a way to deal with that aggression.

I generally train at night, sometimes at midnight. There's a wonderful gym in our office building.

Training helps me physically, but it gives me stability mentally. If I don't train, I'm an angry bear.

With your physique, were you ever worried that you'd make some of the Superstars look small?

[Laughs] No. In the old days [when McMahon was a ringside announcer] I was concerned about the performers not being as tall as me. We would compensate for that in various ways.

Did you have them stand on a box?

Yes. Pampero Firpo is an example. We had him standing on an apple box. I often didn't wear any shoes. It was a very cold, concrete floor.





SEE YOURSELF IN HD

SUPER HD



**A HIGH-DEF FAT TARGETING & SCULPTING
AGENT.* NOW WITH SILMPRO TECHNOLOGY**



[facebook.com/Cellucor](https://www.facebook.com/Cellucor) // twitter.com/Cellucor // [Instagram@Cellucor](https://www.instagram.com/Cellucor)

*These statements have not been evaluated by the Food and Drug Administration. These products are not intended to diagnose, treat, cure, or prevent any disease. Product to be used with a strict diet and training programme.

*** COMING
SOON**

What is your advice for sticking it out in hard times?

I think you have to develop an attitude. From the severity that I experienced, taking numerous beatings and things of that nature, I developed a defensive philosophy that has served me very well through the years. That is: if I lived through whatever the adversarial position was, I won. No matter what happens, if I'm still breathing in and out, I won. So if you have that kind of philosophy, then failure is not a big thing.

What is your fitness and nutrition regime like these days?

I'm still making gains. Very, very slow gains [laughs], but I am, and that's something you can do for the rest of your life. If you train as a lifestyle, it helps you through everything. My training has evolved. When I worked out with [bodybuilder] Steve Stone, he had an old-school philosophy of just get the weight up. It doesn't matter how you do it, just get it up. And with that philosophy I got a personal best of a 700-pound

His philosophy is, don't do anything where you can get hurt. You can do a max, but you really have to work into it. I recently had a resurfacing of my left hip, so I'm at a 560 squat now, and our goal is to get back up to 600.

That's an incredible number for someone at any age.

Age really doesn't have anything to do with it. I'll be 70 in August. I had a personal best a few weeks ago on the incline Hammer Strength machine. I did five reps with 450. It's important to make gains, but it's important to be safe. If you have an injury in the gym, it sets you back so much it's not worth whatever gain you were going to make. That's why strict form is so important. It's about form, not the weight.

What's the WWE corporate gym like?

I consider the gym church. It's sacred ground. When you walk in there, you walk in with respect, and everyone is welcome. It doesn't matter what your body type is. But if you're screaming

“I got a personal best of a 700-pound squat for three reps, after a double quad tear.”

squat for three reps when I was 60-something, and that was after a double quad tear. That was an arena injury [not training related].

What I do now with Mike Monteforte, my trainer...I don't really have a trainer. We train together. He is my trainer, but we train together. I don't like people saying, "Come on! You can do it." It makes me want to rack the weight and say shut up. Mike's training and technique are totally different from Steve Stone's. Mike's technique is one of safety, which is so important.

and growling and dropping your weights, I'll show you the door. Stay away from the muscleheads who are growling. That's not allowed in my gym. Another thing that's not allowed in my gym are phones.

What are you eating?

I look at eating as fuel. I'm not that conscious of the protein I eat, but I know it's a lot. I think cheat meals are very important, so I do it about once a week. When you cheat, go for it. It's important from a psychological standpoint. Oreos are my



ANY TIME, ANY PLACE: If McMahon knows he might miss a training session due to his hectic schedule, he will double up on some days.

favourite cookie. I'll eat an entire box. And my philosophy is that the body can assimilate only so much in a given time. If you have two or three Oreos every day, not good. But if you eat an entire packet of Oreos at one time, it's OK. It just passes through. I'll eat pasta loaded up with meat sauce. Pizza. All the



carbs you stay away from normally, load 'em up. I will gorge. It's almost like I will force-feed myself on a cheat meal. And afterwards I think, "Oh, my God, I don't want to feel like this." So it gets me back in the frame of mind immediately after the digestive process to do the right thing.

You've been credited as one of the pioneers of pay-per-view TV as well as the man who reinvented sports entertainment. What do you think your legacy will be?

I don't look at myself as having a legacy in entertainment, and quite frankly I don't care. It doesn't

matter what I think, it's what people perceive. I'm not good at patting myself on the back. I want to be known as a loving father and grandfather. And if I'm lucky, a great-grandfather. And I'm the luckiest man in the world without question, so it might happen.

What will happen to WWE if you retire, or, eventually, go up to that big ring in the sky?

Our future from a corporate standpoint is extremely strong because we have so many talented executives, and they all bring different strengths to the table. Steph and Paul will certainly have significant roles going forwards. I think when I kick, the organisation is going to change, and I think for the better, because there's no one person who can do all that I can do because of my background. There's no one individual who's going to take my place.

What is your advice to young entrepreneurs?

Have a passion for what you do and you'll never work a day in your life.

What is your advice to aspiring Superstars?

Reach for the brass ring. Don't be happy with just making the team. It's important to not be concerned with failure and not be afraid of making a fool out of yourself. You know, when I was my character, I did all kinds of things that to the normal person would be humiliating. But it was a character, and I think you can't be afraid of

failing in front of a live audience. You need to be able to learn from it and accept it. Don't be afraid to try new things.

Do you have a favourite Superstar?

That would be Undertaker because of his loyalty, his longevity, and his extraordinary commitment to his character. We have lots of fun creating fun. [Superstars] try to crack each other up from time to time, and we all have tried to get Undertaker to break character, and we can't do it. He is such a professional and an extraordinary human being behind the character. He's committed to his craft and has worked through injuries.

What is your favourite WrestleMania moment?

WrestleMania III in front of what was the largest indoor attendance record—93,000 people at the Silverdome in suburban Detroit. When Hulk Hogan slammed Andre the Giant. I think that's been the biggest moment thus far.

Do you think you'll ever surpass that?

I think there's a good opportunity with an announcement we'll make soon. **M&F**

VINCE MCMAHON'S BACK WORKOUT

Giant sets and little rest define this routine for lats as wide as a barn door.

McMahon trains up to seven days a week, sometimes doing two-a-days if he knows he may miss a session due to his gruelling schedule. He rotates through a split of chest, shoulders, arms, legs, and back (which is his strongest body part and favourite to train).

"On the bentover row he can do 315 for 10 reps," says Mike Monteforte, McMahon's trainer and workout partner. "He has unbelievable strength in his back." After completing a body part, the two will then do a CrossFit-inspired workout consisting of battling rope slams, sled drags, sledgehammer swings (with a hammer named Big Jack, an allusion to the AC/DC song), and sprints. After that—yes, there's more!—he does a circuit of ab exercises. The whole training session takes 90 minutes.

McMahon does most of his exercises as giant sets, performing them in groups of three. He'll do one set for each exercise in the group before resting and then do the same for all the other groups in the workout. He then returns to the first group to increase the weight and decrease the reps and repeats the cycle. He rests while Monteforte works and vice versa. At right is a sample back day.

FAMILY FEUD: McMahon, his son-in-law Paul "Triple H" Levesque, and daughter Stephanie make up the most powerful trio in sports entertainment.



BACKING IT UP:
McMahon's favourite body part to train is back. He can do bentover rows with 315 pounds for reps.



GIANT SET 1

EXERCISE	SETS	REPS
Lat Pulldown*	3	15, 12, 10
SUPERSET WITH:		
Bentover Row	3	15, 12, 10
SUPERSET WITH:		
Shrug	3	15, 12, 10

GIANT SET 2

EXERCISE	SETS	REPS
Cable Row	3	15, 12, 10
SUPERSET WITH:		
Close-grip Pulldown	3	15, 12, 10
SUPERSET WITH:		
Pullover	3	15, 12, 10

GIANT SET 3

EXERCISE	SETS	REPS
DB Bentover Row	3	15, 12, 10
SUPERSET WITH:		
One-arm Pulldown	3	15, 12, 10
SUPERSET WITH:		
One-arm Row	3	15, 12, 10

After performing every giant set once for 15 reps, McMahon repeats the routine for 12 reps, then 10. When he feels strong, he'll occasionally max out for a set of five or three reps.

* McMahon performs four to five warm-up sets of 20 to 25 reps first.

TEAM GASPARI ATHLETE
HIDETADAYAMAGISHI



GENETICS


ONLY TAKE YOU SO FAR.





+44 (0) 1782 281 222
www.gasparinutrition.co.uk

For all UK Trade Enquiries contact:
Body Temple on 01782 281 222.
Visit www.gasparinutrition.co.uk

body**temple** 

 Gaspari Nutrition UK

 @GaspariUK

 gaspari_nutrition_uk

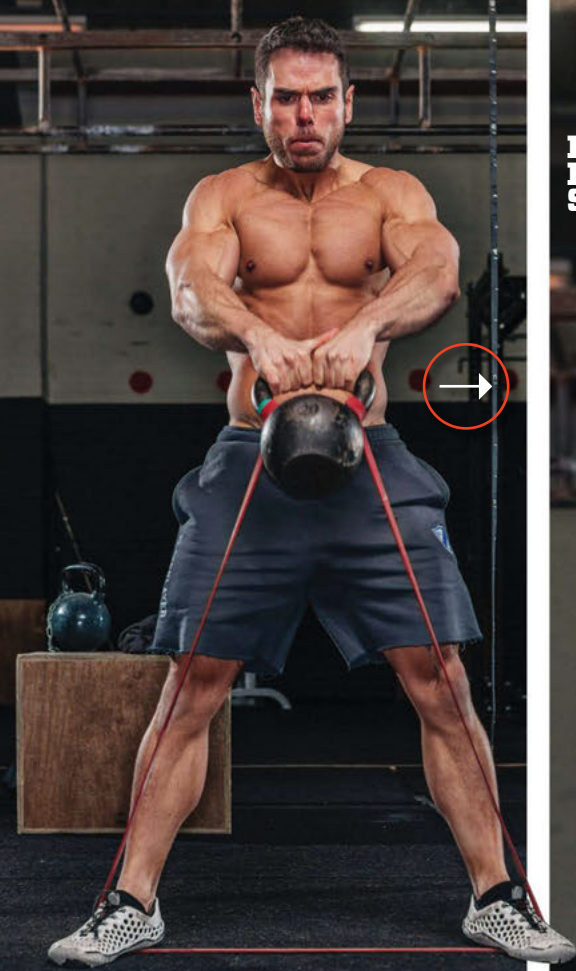


BALLISTIC

ROSS EDGLEY SHOWS HOW
SOVIET-INSPIRED PLYOMETRIC TRAINING
CAN BUILD SPEED AND STRENGTH

BY ROSS EDGLEY
PHOTOGRAPHY BY CHRISTOPHER BAILEY





BANDED KETTLEBELL SWING

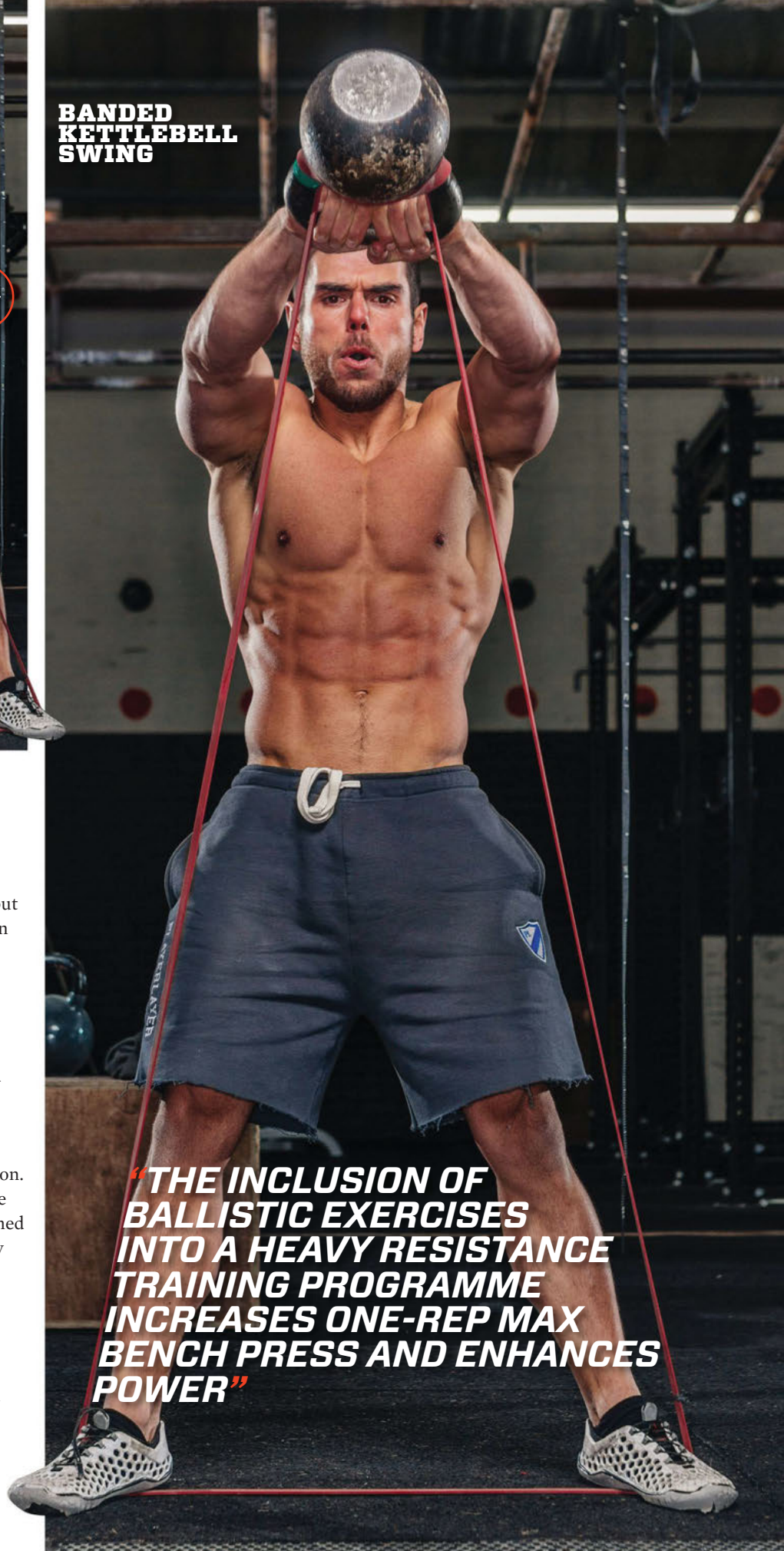
Gyms around the world are filled with people comparing strength. “How much can you lift?” is the question on everybody’s lips.

Strength is king. But why does fast and explosive plyometric power output get such little airtime? Why don’t men and women compare their stretch-shortening cycles or their ballistic resistance-training routines?

The answer is because not enough people understand the value of plyometric training. But if you do, it could add an important dimension to your strength.

The origins of this form of training date back to the 1950s and Soviet Union. American coaches noticed that before competitions, Soviet athletes performed jumping drills, which was completely different from the traditional static stretching favoured by the rest of the world.

This was later accredited to the “depth jump” training protocol created by pioneering strength coach Dr Yuri Verkhoshansky. Put simply, Verkhoshansky would have athletes



“THE INCLUSION OF BALLISTIC EXERCISES INTO A HEAVY RESISTANCE TRAINING PROGRAMME INCREASES ONE-REP MAX BENCH PRESS AND ENHANCES POWER”



jump off a box, land on the floor—whilst absorbing the shock— then instantly jump as high as they possibly could.

Later labelled “shock training”, in reference to the body’s ability to absorb the shock/impact, it was believed one short-term adaptation to the depth jump was a higher vertical jump compared to a static jump.

Research showed this was because Verkhoshansky was able to play around with the elasticity of the muscles and tendons by positively manipulating the body’s stretch-shortening cycle.

The stretch-shortening cycle refers to when the muscles contract eccentrically (lengthen) then immediately contract concentrically (shorten).

Improving the eccentric phase has been shown to improve the concentric phase and result in increased force production and output, according to research from the School of Kinesiology at the University of Zagreb.

This explains why doing depth jumps enabled athletes to leap higher: they were able to use the elastic energy built up during the eccentric phase to propel themselves up during the concentric phase of the jump.

Verkhoshansky also found adaptations to this form of training weren’t solely short term. In a study published in 1989 in the *National Strength and Conditioning Journal*, he found that elite athletes undertaking a depth jump programme gained 15% in maximal strength.

Many of Verkhoshansky’s teachings still hold true but earlier plyometric principles and their modern use in sports science differ. This is because Verkhoshansky’s shock training was originally confined to improving jumping performance while modern sports science uses plyometric principles to increase overall muscular speed and power too.

MAX STRENGTH

British powerlifter Andy Bolton, who was the first man to deadlift more than 1,000 lbs in competition, is a good example of the application of Verkhoshansky’s stretch-shortening cycle principles.

Watch a YouTube video of this historic 1,003 lbs lift in 2006 and you will see he grips the bar, performs three hamstring stretches and then on the third stretch begins to lift. This is because performing two brief eccentric contractions can help to improve the subsequent concentric contraction.

This is just one example of how Verkhoshansky’s original principles have progressed. Shock training has also now become incorporated into ballistic resistance training, which is about lifting weights as fast and explosively as possible.

Every time you perform a conventional squat or bench press your body naturally decelerates at the top of the movement. In fact, in a one-rep maximum lift it’s believed as much as 24% of the lift time is spent decelerating.

For a lift at 80% of your one-rep max, deceleration can increase to as much as



DEPTH JUMP



“ELITE ATHLETES UNDERTAKING A DEPTH JUMP PROGRAMME GAINED 15% IN MAXIMAL STRENGTH”

52%. Even if you perform them quickly (speed reps) the speed decreases at the end of the concentric motion. It is a protective mechanism in the joints that prevents the shoulders becoming detached during quick bench presses.

But ballistic training virtually eliminates this deceleration. Consider a plyometric push-up where the aim is to throw yourself into the air—the same protective mechanism doesn’t apply. Instead it’s about achieving maximal acceleration, optimal power, a fully firing nervous system and optimal activation of fast twitch muscle fibres. For these reasons you should learn the basics of ballistic training. Here are some of the benefits you can expect.

Bigger Bench Press

A study in the *Journal of Strength and Conditioning Research* investigated the additive effects of ballistic training to a traditional heavy resistance training programme on upper body strength.

Seventeen resistance-trained men were assigned to two groups: one followed a traditional strength training protocol for eight weeks; the other combined traditional strength training and ballistic training, which consisted of

a conventional bench press coupled with plyometric push-ups (where the hands leave the floor during the upward-concentric phase).

The one-rep max on bench press was measured after eight weeks. The traditional strength-training group’s max increased by 7.1% on average compared to 11.6% for the ballistic-strength training group. The researchers concluded that the inclusion of ballistic exercises into a heavy resistance training programme increased one-rep max bench press and enhanced power. So if you want to increase your bench press, try hitting the gym mats to perfect your plyometric push-up.

More Power

Every person has a different proportion of fast twitch and slow twitch muscle fibres. Typically, strength and speed athletes have more fast twitch while endurance athletes have more slow twitch fibres.

What is significant for those wanting to look good on the beach is that slow twitch fibres tend to be smaller than fast twitch fibres, which is why Olympic sprinters are so much bigger than marathon runners. So if your goal is to improve the size and appearance of your muscles you should

listen to the findings from scientists at the Department of Kinesiology at McMaster University in Canada.

They measured muscle activation during periods of ballistic training using electromyographic technology (EMG). They found that a selective activation of fast twitch motor units may occur in ballistic contractions under certain movement conditions.

This adds to the evidence that suggests ballistic training could make you more powerful and muscular.

SPEED AND STRENGTH WORKOUT

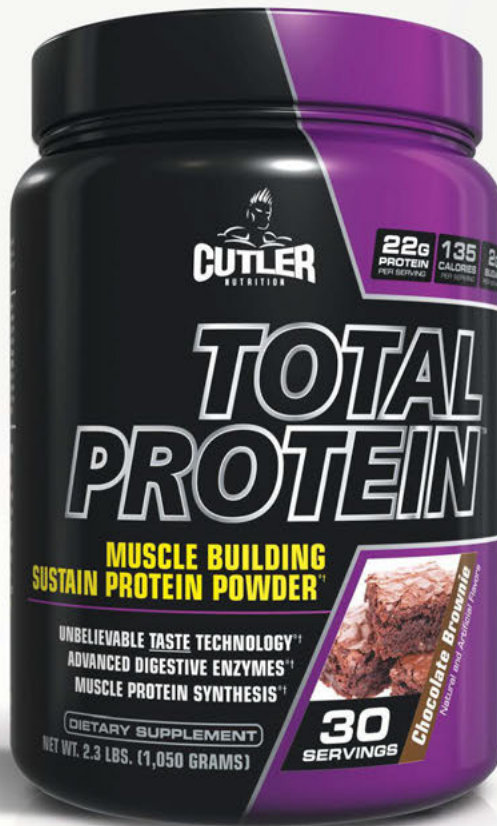
I’ve devised the following workout, which combines traditional strength training and ballistic training to bring about neuro-musculoskeletal and performance adaptations to make you a bigger, stronger, quicker and better-looking athlete.

The workout is divided into push, pull and leg sessions. Aim to complete one strength-based routine for each session every week and also do one speed-based routine for each session every week. **M&F**

Want to see the video that accompanies this feature? Go to: www.muscle-fitness.co.uk

For references to this article go to www.muscle-fitness.co.uk

QUALITY AND TASTE



THE BEST OF BOTH

Total Protein™ provides a mouth watering, generous amount of protein per serving, and is the **ONLY ONE** that comes with the endorsement of the incomparable Jay Cutler himself.



TRAIN LIKE A PRO

MONDAY

'SPEED' PUSHING DAY (CHEST, SHOULDERS AND TRICEPS)

~~PLYOMETRIC PUSH-UP~~

4 sets of 5 reps (Perform on boxes for advanced athletes)

Emphasis on speed and motor recruitment (fast twitch) that also prepares the body for subsequent lifts

~~MEDICINE BALL CHEST THROW~~

5 sets of 10 reps (Use a weight where you are not fatiguing on the tenth rep. Speed is key.)

Emphasis on speed and motor recruitment (fast twitch) that also prepares the body for subsequent lifts

~~INCLINE BENCH PRESS~~

5 sets of 10 reps (70% of your one-rep max)

Emphasis on form and hypertrophy

~~SEATED SHOULDER PRESS~~

5 sets of 10 reps (70% of your one-rep max)

Emphasis on form and hypertrophy

~~TRICEPS PUSHDOWN~~

~~(BANDED IF POSSIBLE)~~

5 sets of 10 reps (65% of your one-rep max)

Emphasis on form, hypertrophy, volume and speed

TUESDAY

'STRENGTH' (LEGS)

~~BOX JUMP~~

5 sets of 5 reps

Adjust the height and difficulty so you aren't fatiguing or struggling. This is merely to prepare the body for a heavy leg session.

~~BACK SQUAT~~

5 sets of 5 reps (80% of your one-rep max)

Emphasis on strength and quality of movement

~~DUMBBELL LUNGE~~

5 sets of 10 reps (70-75% of your one-rep max)

Emphasis on strength, quality of movement and volume

~~LEG EXTENSION~~

5 sets of 10 reps (70-75% of your one-rep max)

Emphasis on strength, quality of movement, volume and hypertrophy

WEDNESDAY

'SPEED' PULLING DAY (BACK AND BICEPS)

~~BAND-RESISTED~~

~~KETTLEBELL SWING~~

3 sets of 10 reps

The band is used to emphasise the stretch-shortening cycle. There will be an emphasis on speed and motor recruitment (fast twitch) that also prepares the body for subsequent lifts.

~~DEADLIFT~~

5 sets of 3 reps (85-90% of your one-rep max)

Emphasis is on strength and quality of movement. Maintain the same form of efficiency you achieved during the kettlebell swing.

~~BENTOVER ROW~~

5 sets of 10 reps (70-75% of your one-rep max)

Emphasis on form and hypertrophy

~~STANDING PREACHER CURL~~

5 sets of 12 reps (70% of your one-rep max)

Emphasis on form and hypertrophy

THURSDAY

REST

It is important to rest. Even if you feel ok your body will have been put under a lot of stress from the strength- and speed-based training protocols. So rest ready for the next three days.

FRIDAY

'STRENGTH' PUSHING DAY (CHEST, SHOULDERS AND TRICEPS)

~~MEDICINE BALL~~

~~CHEST THROW~~

4 sets of 8 reps using submaximal weight (65% of your one-rep max)

Emphasis on speed, kinetic flow and motor recruitment that prepares the body for subsequent lifts

~~STANDING SHOULDER PRESS~~

5 sets of 5 reps (80% of your one-rep max)

Emphasis on strength and quality of movement.

~~CLOSE GRIP BENCH PRESS~~

5 sets of 10 reps (70% of your one-rep max)

Emphasis on form and hypertrophy

~~SIDE LATERAL BELT RAISE~~

5 sets of 10 reps (70% of your one-rep max)

Emphasis on form and hypertrophy

SATURDAY

'SPEED' (LEGS)

~~DEPTH JUMP~~

4 sets of 8 reps

Emphasis on speed, kinetic flow and motor recruitment

~~JUMP SQUAT~~

5 sets of 5 reps (65% of your one-rep max)

Emphasis on speed and acceleration through the movement.

~~PROWLER PUSH/SLED DRAG~~

4 sets of 20 m sprints (maximal rest)

Emphasis on speed and motor recruitment

~~HAMSTRING CURL~~

5 sets of 10 reps (70% of your one-rep max)

Emphasis on form and hypertrophy

SUNDAY

'STRENGTH' PULLING DAY (BACK AND BICEPS)

~~DEADMAN MEDICINE~~

~~BALL THROW~~

3 sets of 5 reps (Use a weight where you are not fatiguing.)

Emphasis on speed and motor recruitment (fast twitch) that also prepares the body for subsequent lifts

~~SNATCH (ADVANCED) /~~

~~DYNAMIC DEADLIFT~~

~~(BEGINNER)~~

5 sets of 5 reps (65% of your one-rep max)

Emphasis on speed and motor recruitment (fast twitch) that also prepares the body for subsequent lifts

~~BAND-RESISTED~~

~~BENTOVER ROW~~

5 sets of 10 reps (70-75% of your one-rep max)

Emphasis on speed, form, hypertrophy and Rate of Force Development

~~BAND-RESISTED~~

~~PREACHER CURL~~

5 sets of 12 reps (70% of your one-rep max)

Emphasis on speed, form, hypertrophy and rate of force development

MR HYDE

MORE
ANIMAL
THAN
MAN"

ROBERT LOUIS STEVENSON

**INTENSE ENERGY! | PINPOINT FOCUS!
TRIPLE-SOURCE CAFFEINE TIME-RELEASE
TECHNOLOGY...NO CRASH!**



PRE-WORKOUT | RTD | NEW ENERGY SHOTS

bodytemple

NASKORSPORTS
DISTRIBUTION, BRAND DEVELOPMENT.

PR METEUS
Intelligent Sports Technology

PROSUPPS.COM
RESULTS...PERIOD!

*These statements have not been evaluated by the Food and Drug Administration. These products are not intended to diagnose, treat, cure, or prevent any disease.

THE 10 STRONGEST HUMANS EVER TO WALK THE EARTH

WE COMBED THE RECORDED HISTORY OF ALL
STRENGTH SPORTS TO PRESENT YOU WITH THE
10 STRONGEST MEN OF ALL TIME.

BY SHAWN PERINE

THROUGHOUT HISTORY, mankind has been obsessed with physical strength. Since the days when the legends of Hercules first took shape, to the ancient Olympic Games where wrestling matches were used to determine the strongest man alive, we have always wanted to name one man above all others. As the centuries wore on, the methods for determining the strongest man grew more sophisticated, from the advent of Highland games to Olympic weightlifting.

Since 1977 the presumed strongest men in the world have gathered annually to compete in the World's Strongest Man competition (WSM) to determine who's No. 1, with similar contests being held by the International Federation of Strength Athletes (IFSA) and at the Arnold Sports Festival.

Still, with all the various ways we've devised to determine who is the strongest of the strong, it seems we've managed only to create factions, each loyal to the top athletes in their sport or organisation of choice.

Powerlifting fans might tell you that Ed Coan is, pound for pound, the strongest man who's ever lived or that the far larger Andy Bolton is the overall strongest.

BILL KAZMAIER, or five-time winner Mariusz Pudzianowski.

All of the men listed above have a legitimate claim to being history's strongest man, but really just one can claim ultimate strength, and we've decided who that person is. To do so we've consulted with a man whose name deserves to be included in every discussion regarding strength. Dr Terry Todd isn't merely the United States'

first national powerlifting champion (in 1964 and '65), he was also the first man to total 1,600, 1,700, 1,800, and 1,900 pounds. Todd is also the creator of the Arnold Strongman Classic, one of the most renowned strength historians in the world, and he and his wife are the directors of the world's largest collection of physical fitness and strength memorabilia, the Stark Center for Physical Culture and

Sports at the University of Texas at Austin.

We drew upon Todd's vast collection and reviewed countless articles detailing the feats performed by men of all eras.

We'd like to make it clear that comparing athletes whose peaks came a century apart makes educated speculation a must. First, there's the issue of chemical enhancement, something obviously not available to a Louis Uni. Second, Todd points out that during the late 19th and early 20th centuries, strength athletes didn't so much train as give performances on an irregular basis. The strength they displayed for gawking crowds was raw and untrained—and it was their performances that made them stronger, nothing systemic. In this light, we attempted to recognise not just recorded strength but potential strength as well. Call it a meta-physical levelling of the playing field.

Without further ado, we believe this list to be the most definitive of its kind.



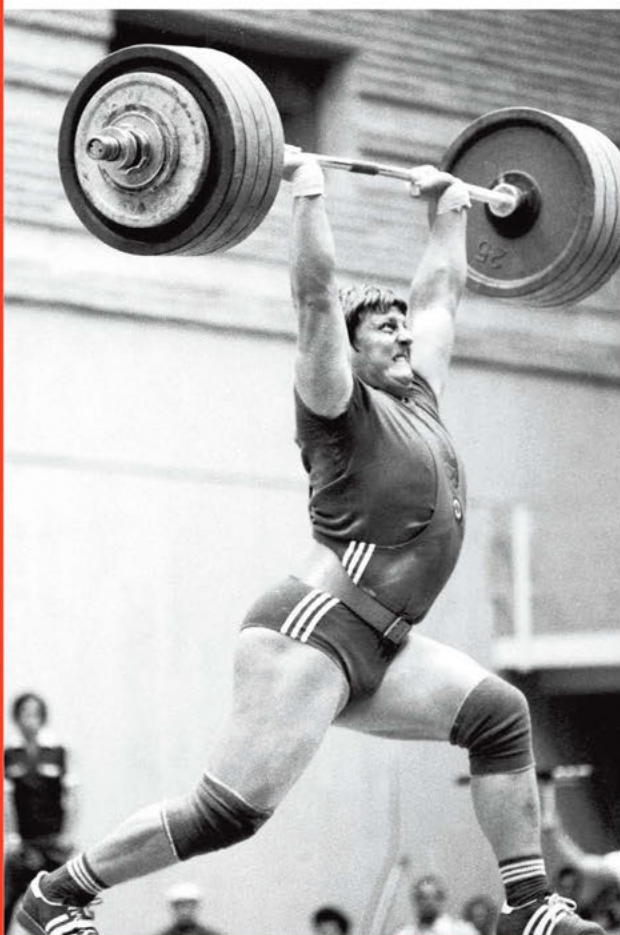


10

STRONGMAN BRIAN SHAW

BORN: ——— HEIGHT: ——— WEIGHT: ———

Shaw shares something in common with the legendary Bill Kazmaier—both men have placed top three at the World's Strongest Man a total of five times. Shaw, a two-time WSM winner (2011, 2013), has posted bests of 972 pounds in the deadlift and 1,122 pounds in the Hummer tyre deadlift in competition (with straps). In the gym, he's credited with squatting 825 pounds, benching 535 pounds, and deadlifting 985 pounds (with straps).



9

WEIGHTLIFTER LEONID TARANENKO

BORN: ——— HEIGHT: ——— WEIGHT: ———

Taranenko set the world record in weightlifting for the clean and jerk (266 kilograms, or 58.2 pounds) and total (475 kilograms, or 1,045 pounds) way back in 1988—an aeon in weightlifting years—and these records still stand today. Due to restructuring by the International Weightlifting Federation of its weight classes, Taranenko's official records no longer stand, but his lifts have yet to be equalled. You know how hard it is to bench six plates? Imagine lifting it overhead. Now that's power!

JASON BREEZE; RIA NOVOSTI/ALAMY

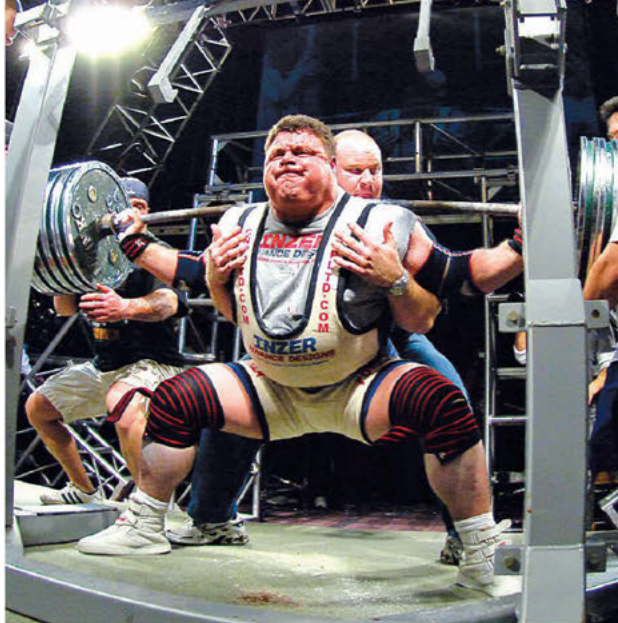
08

POWERLIFTER

ANDY BOLTON

BORN: HEIGHT: WEIGHT:

Britain's Andy Bolton is the first man in history to have deadlifted 1,000 pounds. Twice during competition he eclipsed his own accomplishment with pulls of 1,003 pounds and a then-record 1,008 pounds. Bolton holds the fourth highest squat of all time (1213.63 pounds), and his three-lift total of 2,806.34 pounds ranks third highest in history. He once stated his goal was to break the mythical 3,000-pound total, a feat not even dreamed of by most powerlifters of any era.



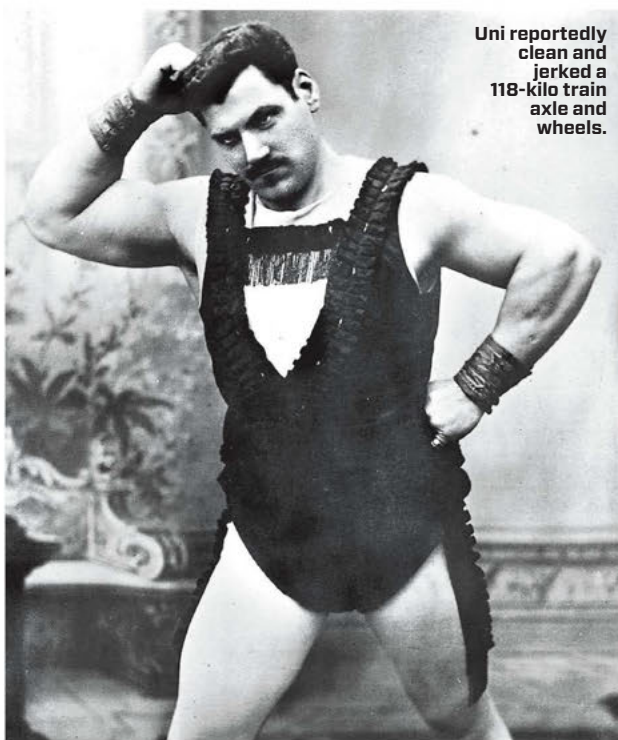
7

POWERLIFTER

BRIAN SIDERS

BORN: HEIGHT: WEIGHT:

Siders belongs on this impressive list for his overall strength—he excels in all three powerlifts with personal bests of 1,019 pounds in the squat, 799 pounds on the bench, and a deadlift of 865 pounds for a 2,651-pound total. His best raw lifts include 650 pounds on the bench and 840 pounds in the deadlift. Siders takes pride in having achieved the aforementioned feats without the use of performance enhancement, meaning that his strength derives purely from genetic blessings and brutally hard work, much like that of the following man...



Uni reportedly clean and jerked a 118-kilo train axle and wheels.

6

STRONGMAN

LOUIS UNI

LIVED: HEIGHT: WEIGHT:

It's especially difficult to calculate just where Uni, aka Apollon the Mighty, should rank among the all-time greats, as chronicles of his feats are mostly florid, noncritical accounts. But he was known for his great grip strength and large hands, which rendered him capable of lifting bars others couldn't even fit their hands around. Uni was also quite possibly the world's first strength athlete, being an extremely fit and agile man who took on all comers in wrestling challenges.



5 **STRONGMAN** **VASYL VIRASTYUK**

BORN: _____ **HEIGHT:** _____ **WEIGHT:** _____

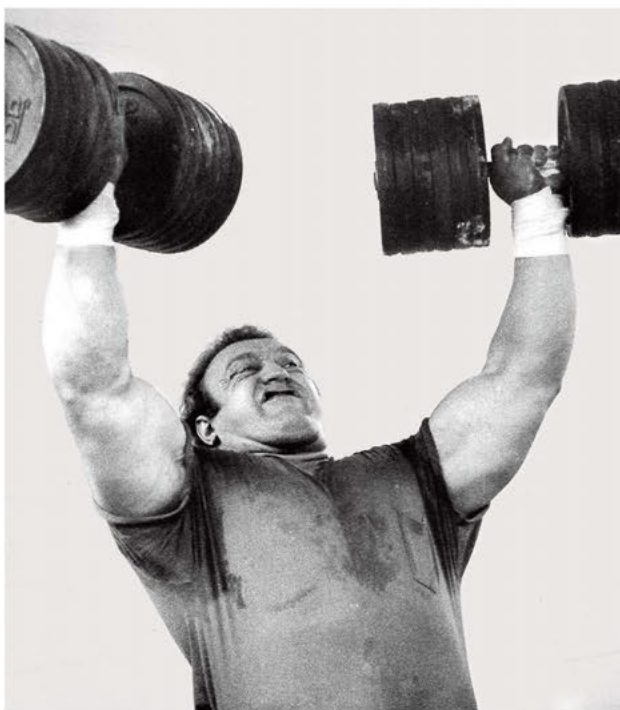
Virastyuk is the first person ever to be declared the strongest man alive in both the World's Strongest Man and IFSA World Championship competitions, winning in 2004 and 2007, respectively. In fact, he edged out the man who tops this list when he achieved victory at the IFSA contest. Additionally, the Ukrainian strongman took second place at the Arnold Strongman Classic on three occasions (2005-07). Now 40, Virastyuk has been retired from competition for some time, but his accomplishments and his legacy live on.

**WEIGHTLIFTER, POWERLIFTER,
SHOWMAN**

4 **PAUL ANDERSON**

LIVED: _____ **HEIGHT:** _____ **WEIGHT:** _____

Paul Anderson's name may be the most controversial one on this list. Proclaimed by some to be far and away the strongest man who ever lived, he also has his share of sceptics. Whether he really squatted 1,200 pounds is open to debate, but Dr Todd personally witnessed him squat 700 for eight reps in an exhibition—at a time when the official world record 1RM for the squat was about 700 pounds. Anderson won an Olympic Gold medal for the U.S. in weightlifting in Melbourne, Australia, in 1956.



3 **POWERLIFTER, STRONGMAN** **BILL KAZMAIER**

BORN: _____ **HEIGHT:** _____ **WEIGHT:** _____

"Kaz" is considered by many to be the strongest of the strong, and it's hard to argue. The winner of the '80, '81, and '82 WSM contests, Kazmaier was barred from competing in 1983 by the event's organisers because it was assumed that so long as he competed, no one else would ever get the chance to savour victory. Kaz was the first man to lift all five McGlashen stones, which weigh between 90 and 160 kilograms (about 200 and 350 pounds). His 661-pound bench press stood as the world record for years, and if not for a pec tear shortly thereafter he would have surely beaten it himself. His 2,425-pound total, set back in 1981, is still the record for raw (no bench shirt, no squat suit) powerlifting today.

MAT SZWAIKOS: COURTESY OF THE STARK CENTER FOR PHYSICAL CULTURE & SPORTS, THE UNIVERSITY OF TEXAS; BETTMANN/CORBIS

BEPowerFUL®

ONE MORE REP



**MORE ENERGY, MORE INTENSITY, AND MORE
POWER FROM START TO FINISH.*†**



POWERLIFTER, STRONGMAN

BENEDIKT MAGNÚSSON

BORN: HEIGHT: WEIGHT:

Magnússon is the one man in history to have pulled more off the floor than Andy Bolton (8th on this list) and currently holds both the powerlifting and strongman world records in the deadlift. His powerlifting record, set in 2011, stands at 1,015 lbs (460 kg). Last year, he broke the strongman world record, and overall record, with a 1,016-lb pull at the World Deadlift Championships in Leeds, just eight weeks after surgery to re-attach a finger tendon. Based on the fact no one has ever lifted a heavier weight off the ground, Magnússon could easily have topped this list. However, we think one man has him beat...



POWERLIFTER, STRONGMAN

ŽYDRŪNAS SAVICKAS

BORN: HEIGHT: WEIGHT:



IN OUR OPINION, HE IS THE STRONGEST MAN

of all time. You just can't argue with these numbers: Savickas has won the Arnold Strongman Classic seven times (2003-08, 2014), which is considered a truer test of pure strength than the better-known WSM competition. In 2005, he broke three world records en route to victory at the IFSA Strongman World Championship. The following year he again took top honours.

Savickas placed second at the WSM competition in 2002, 2003, and 2004, usually dominating the events that involved pure strength while not doing as well in those that required speed and agility. In 2009, he broke the streak by winning the WSM—an accomplishment he'd repeat in 2010, 2012, and 2014. In '14, Savickas also set a new world record with a 500-pound log lift to complement his other impressive totals: a raw squat of 880 pounds, a 900-pound deadlift, and a 629-pound bench. **M&F**

THE CANDIDATES

More than a few men can stake their claim as being history's strongest, and while we just listed our top 10, a number of others also deserve high praise: Ed Coan, Franco Columbu, Marvin Eder, Lamar Gant, Mark Henry, Mikhail Koklyaev, Magnús Ver Magnússon, Mariusz Pudzianowski, Jón Páll Sigmarsson, Naim Süleymanoğlu, and O.D. Wilson.

JOE MANN/ALLSPORT/GETTY IMAGES; PER BERNAL



CELEBRATING TWO DECADES OF SUCCESS



That's right – one of the most successful names in sports nutrition is turning 20! For two decades, MuscleTech® has been a premier choice for athletes looking to help build muscle, increase strength and enhance performance. NITRO-TECH® has led the way as one of the industry's leading musclebuilding proteins. Its formula has stood the test of time and NITRO-TECH® is used by consumers globally! How many proteins are backed by this many years of real-world experience and results? Get NITRO-TECH® today!



BECOME A MUSCLETECH V.I.P. AT
MUSCLETECH.UK.COM

bodytemple
01782 281222



Proper nutrition and regular training are essential to achieving your fitness and bodybuilding goals. Facebook logo is owned by Facebook Inc. All trademarks are owned by their respective trademark owners. Carefully read the entire label before use and follow directions. © 2015



Spice

TRADE

Swap your dry dinners for some flavourful fare. Healthy never has to be boring.

BY BRITTANY SMITH

RECIPES BY ALICIA WALTER AND MICHAEL PSILAKIS

PHOTOGRAPHS BY TRAVIS RATHBONE



JUST BECAUSE YOUR workout regime is cut-and-dry doesn't mean your diet has to follow suit. International flavours, namely spice rubs, marinades and sauces, turn uninspired food into sensational meals, adding maximum flavour without adding unnecessary calories, carbs, or fat. Try mixing za'atar, a citrusy Middle Eastern spice, with Greek yogurt to make dips and dressings; or sprinkle the Japanese condiment gomashio onto sweet potatoes for a salty bite. Experiment with Moroccan and Cretan spices for flavour, or tzatziki sauce. Here are some classic dinner pairings you can mix into your menu planning. Never settle for a dry chicken breast again!





FENNEL

The vitamins and minerals present in fennel seeds (above the cinnamon sticks) maintain bone structure and strength, while dietary nitrates help lower blood pressure and protect the heart.



WHOLE GRILLED SEA BASS

SERVES 2

FOR THE LADOLEMONO

Yields approx. 1 litre

250 ml lemon juice
30 g Dijon mustard
30 g garlic puree
½ tsp dry Greek oregano
550 ml extra virgin olive oil

1 whole sea bass, about 450 g
1 tbsp olive oil for brushing
Sea salt and black pepper to taste
1 small handful of torn fresh herbs
(dill, mint, parsley, or chives)

1. Combine all ladolemono ingredients except olive oil in a large mixing bowl. Whisk thoroughly. Slowly drizzle in oil while mixing to ensure even distribution.

2. Cut either side of the fish's spine, going all the way down. Snip spine just below the head and just above the tail, and remove the skeleton in one piece.

3. Brush fish with olive oil and season with salt and pepper. On a very hot charcoal or gas grill, or a ridged griddle

ITALIAN KALE

2 tbsp olive oil
2 cloves garlic, peeled and crushed
4 anchovies, chopped
30 g walnuts, chopped
2 tbsp capers, chopped
40 g raisins
1 head kale, leaves stripped from stalks, cut into 2-inch pieces
Salt to taste

1. Place a large sauté pan over medium high heat. Add olive oil and garlic. Cook until fragrant and garlic is lightly browned. Remove garlic and add anchovies, walnuts, capers, and raisins. Cook for 1 minute. Mix kale with ingredients in pan.

2. Add 60 ml water and cook until kale is bright green and tender. Add additional water if pan dries out before kale is cooked. Season with salt.



pan, cook fish for about 10 minutes, turning over once, until charred. Immediately transfer to a serving platter, and drizzle liberally with ladolemono. Sprinkle herbs over fish.

MACROS PER SERVING (FOR BRANZINO AND KALE)

930 CALORIES	62 g PROTEIN	28 g CARBS	67 g FAT
------------------------	------------------------	----------------------	--------------------



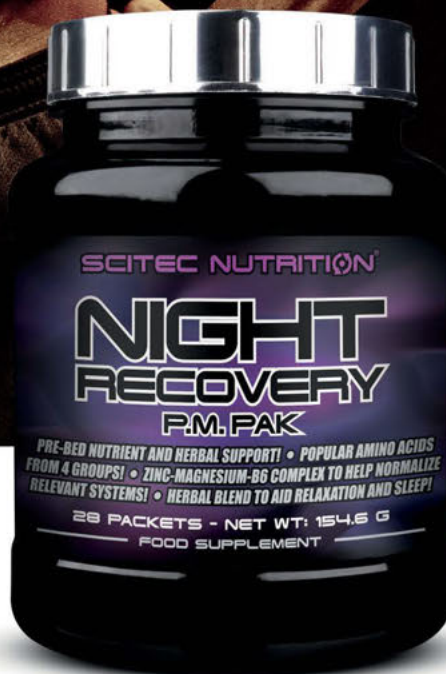
SCOTT DORN

- FITNESS COVER MODEL
- WBFF CENTRAL US CHAMPIONSHIP 1ST
- TEAM SCITEC

I want more recovery

#iwantmore

Scitec Nutrition's **Night Recovery P.M. Pak** is a bedtime nutrient and herbal support formula. It provides a massive 2996mg of amino acids, 245mg Zinc -Magnesium- B6 Complex and a unique 700 mg herbal blend to help relaxation and recovery. This Unique nutrient and herbal formula aids physiological and cognitive functioning.



SCITEC NUTRITION®

For retail enquiries please contact us on: 0127 987 4631



ScitecUK



@TeamScitec



@scitec_uk



scitecnutrition.com



BAKED AUBERGINE

2 medium aubergines
4 cloves garlic
6 tbsp red wine vinegar
125 ml olive oil
Salt to taste
1 tbsp fresh mint, chopped

1. Heat oven to 180°/Gas mark 4.
2. With a knife, poke two holes in aubergine. Push clove of garlic into each hole. Wrap aubergines in foil.
3. Cook until soft, approximately 20 minutes. Remove from oven, and let cool for 10 minutes. Carefully open foil and unfold the collapsed walls of the aubergines so they lie flat. Discard the seed sacks and remove the flesh and garlic to a bowl.
4. Add vinegar, olive oil, and salt to aubergine flesh. Spoon back into skins and top with mint.

HANGER STEAK

SERVES 4

FOR THE SPICY RED RUB

3 tbsp smoked paprika
1½ tbsp clove, toasted and ground
3 tbsp cumin, toasted and ground
1 tbsp cayenne
1 tbsp mustard seeds, toasted and ground
2 tbsp sea salt
2 tbsp sugar

90 g ladolemono
(recipe on previous page)
900 g hanger steak (also called butcher's steak or onglet)
1 tbsp olive oil for brushing
Salt and pepper to taste
6 tbsp spicy red rub

1. Combine spicy red rub ingredients in a bowl.
2. In a resealable bag, combine ladolemono and steak. Marinate for 24 hours (or at least four).
3. Preheat a charcoal or gas grill or ridged griddle pan until hot. Remove excess marinade, and pat dry with paper towel.
4. Brush steak with olive oil; season with salt, pepper, and spicy red rub. Grill until firm and char-marked, about 10 minutes, turning once. Set aside for 10–15 minutes.

MACROS PER SERVING (FOR STEAK AND EGGPLANT)

842 CALORIES	64 g PROTEIN	16 g CARBS	59 g FAT
------------------------	------------------------	----------------------	--------------------

BEPowerFUL®

PERFECT BLEND

Whey HD™ is your go-to powerhouse protein, that contains the perfect blend of high-quality whey proteins, without the unwanted fillers, or excess carbs and fats. If it has a BPI label on it, you can rest assured that what's listed in our ingredients is what is inside our products. Nothing less, nothing more.

You may start to wonder why you ever used another protein!





STEAMED BROCCOLI WITH LEMON TAHINI SAUCE

1 head broccoli, florets cut into large pieces and stalk peeled and cut into rounds
Salt and black pepper to taste
2 tbsp tahini
60 ml fresh lemon juice
2 tbsp gomashio

1. Fill a saucepan with 1 inch of water. Add broccoli and a pinch of salt. Place over high heat and bring to a boil. Cover and reduce to medium heat. Remove from heat when bright green, approximately 6-8 minutes.
2. Mix tahini with lemon juice. Add enough water to thin the sauce consistency. Season with salt and pepper. Pour over steamed broccoli. Sprinkle with gomashio.

THE FLAVOUR OF HEALTH

The Mediterranean-inspired ingredients fall in line with the Mediterranean diet, which has been clinically proven to reduce the risk of heart disease and other chronic illnesses.

CRETAN SPICED TUNA

SERVES 4

FOR THE CRETAN SPICE MIX

1 tsp cumin seeds
1 tsp fennel seeds
1 tsp mustard seeds
3 cardamom pods
10 whole black peppercorns

2 tbsp blended oil (90% canola/
10% extra-virgin)
680-800 g ahi tuna loin, cut into 4 steaks
Sea salt and cracked black pepper
to taste
1 tbsp fresh lemon juice and
extra-virgin olive oil for drizzling

1. Toast Cretan spice mix ingredients in an oven heated to 180°/Gas mark 4 for 5-10 minutes. Transfer to a spice grinder and grind to a powder.
2. In a large frying pan, warm blended oil over medium-high heat. Season tuna on both sides with salt and pepper. Dust all sides (including the edges) generously with Cretan spice mix.
3. Sear tuna for about 2 minutes, turn over,

reduce heat, and cook for 1½-2 minutes more, depending on preference. Leave to rest for 2-3 minutes.

4. Drizzle with lemon juice and olive oil.

MACROS PER SERVING (FOR TUNA AND BROCCOLI)

643 CALORIES	67 g PROTEIN	13 g CARBS	36 g FAT
------------------------	------------------------	----------------------	--------------------

**NOW
AVAILABLE
IN THE U.K.**

THE CHOICE HAS NEVER BEEN SO CLEAR!

Powered by BetaTOR™, a free acid derivative of leucine and HMB, CLEAR MUSCLE™ works on multiple pathways to help promote muscle growth and aid recovery.



STRENGTH



GROWTH



RECOVERY



**BECOME A MUSCLETECH V.I.P. AT
MUSCLETECH.UK.COM**

**DOWNLOAD THE FREE CLEAR MUSCLE™
12-week training program: muscletech.com/trainhard**

CHICKEN AND PORK SOUVLAKI

SERVES 4

FOR THE TZATZIKI

1 cucumber, peeled
10 cloves garlic, crushed and finely chopped
240 ml distilled white vinegar
4 shallots, thickly sliced
1 handful small, picked sprigs of dill
575 g strained Greek yogurt
2 tbsp extra-virgin olive oil, plus more for drizzling
2 tbsp fresh lemon juice
Sea salt and cracked black pepper

450 g pork tenderloin
450 g chicken
360 ml ladolemono (see recipe with sea bass)
Half medium onion, separated into rings
150 g chopped tomato
40 g firmly packed rocket
2 tsp dry Greek oregano
180 g tzatziki
4 rounds wholemeal flatbread, coated with olive oil and char-toasted on both sides (or warmed in a microwave)

1. To prepare tzatziki, quarter cucumber lengthwise and trim off the triangular wedge of seeds. Cut cucumber into very small, even dice. Transfer to a mixing bowl. In a food processor, combine garlic, vinegar, shallots, and dill. Pulse until finely chopped but not pureed.

2. Add to cucumbers. Add yogurt. Fold together with a spatula, adding olive oil and lemon juice. Season liberally with salt and pepper, starting off with 1 tbsp salt. Taste for seasoning. (Store refrigerated for one week.)

3. Carefully trim off the thin white membrane (silverskin) running down one side of pork tenderloin and cut crosswise into generous 1-inch-thick chunks. Cut chicken into 1-inch chunks. Transfer to large resealable bag, cover with 240 ml ladolemono, and refrigerate for 4 hours or overnight.

4. Remove from the marinade and pat dry with a paper towel. Thread the pieces of meat onto 4 wooden skewers, keeping pork and chicken separate.

5. Preheat a charcoal or gas grill until hot. Coat onion with a drizzle of olive oil, salt, and pepper and grill until charred and

soft, turning frequently. Reserve.

6. Season meat lightly with salt and pepper and grill until firm and char-marked on all sides. Pork will take about 8 minutes total, chicken about 6.

7. Smear some tzatziki in the centre of each flatbread and push meat off the skewer on top of tzatziki. Drizzle with ladolemono. Top with onion, tomato,

and rocket. Sprinkle with oregano.

Pull sides of flatbread up to meet in the center like a taco.

MACROS PER SERVING (FOR SOUVLAKI AND CARROTS)

1,252 CALORIES	81 g PROTEIN	71 g CARBS	76 g FAT
--------------------------	------------------------	----------------------	--------------------



ROASTED CARROTS AND WALNUT BUTTER

8 medium carrots, peeled and cut into 1-inch pieces
365 ml grapeseed oil
Salt to taste
4 cloves garlic, peeled and crushed
120 g walnuts, chopped

1. Heat oven to 190°C/Gas mark 5. Toss carrots with 60 ml grapeseed oil and salt. Place on baking sheet and roast until caramelised, approximately 12-14 minutes.
2. Heat remaining grapeseed oil over medium heat. Add garlic and cook until fragrant and slightly browned. Add nuts and salt. Cook until nuts are toasted. Drizzle nuts over carrots.

GRILLED GYRO SPICED LAMB KEBAB

SERVES 4

FOR THE MARINADE

3 cloves garlic, crushed
2 fresh bay leaves
2 shallots, sliced
125 ml red wine vinegar
250 ml red wine
500 ml water
100 g sugar
2 tbsp sea salt

900 g trimmed, boneless leg of lamb, cubed
1 tbsp olive oil
Salt and pepper to taste

FOR THE BLACK RUB

6 tbsp cumin
1 tbsp coriander
4 tbsp yellow mustard seeds

4 tbsp clove
1 tbsp black cardamom
2 tbsp fennel
1 tbsp cinnamon

1. Combine all marinade ingredients in a large saucepan. Bring to a boil and reduce to a simmer until the liquid is halved. Cool completely.
2. In a resealable bag, combine meat and marinade. Refrigerate overnight.
3. Soak bamboo skewers overnight in water.
4. Preheat grill to medium high.
5. Skewer meat. Dress with olive oil; season with salt and pepper. Grill for 1 minute per side. Remove from heat and season with black rub. Grill for another minute per side and then allow to rest for another 2.



COLESLAW WITH ORANGE AND HAZELNUTS

450 g green cabbage, cut into very thin strips
1 tsp salt
3 tbsp olive oil
6 tbsp white wine vinegar
3 tbsp honey
1 tbsp parsley, chopped
1 tbsp chives, chopped
30 g hazelnuts, chopped
1 orange, peeled and cut into rounds

1. Toss cabbage with salt and olive oil. Set aside.
2. Heat vinegar and honey in a small saucepan until honey is dissolved. Pour over cabbage and mix well. Allow to sit for up to an hour.
3. Mix in herbs and top with hazelnuts and orange slices. **M&F**

MACROS PER SERVING (FOR KEBAB AND COLESLAW)

799 CALORIES | **67 g** PROTEIN | **54 g** CARBS | **30 g** FAT



UPGRADE YOUR PERFORMANCE

Gold Standard Pre-Workout™ is designed to unleash focus, power and performance, while supporting energy to help you UPGRADE your results. Containing only high quality essential active ingredients with nothing you don't need. Whatever your goals, accomplish them with the pre-workout product from the world's most trusted brand in sports nutrition.

NEW



OPTIMUM NUTRITION
GOLD STANDARD

▲ vitamins B 1, B 6, B12, niacin and pantothenic acid contribute to normal energy-yielding metabolism.
■ creatine increases physical performance in successive bursts of short-term, high intensity exercise.

† caffeine contributes to increased alertness and improved concentration.

FIGHTING BACK

BEN MUDGE explains how hard training and clean eating have helped him combat cystic fibrosis and become a fitness model

BY MATT TURNER

PHOTOGRAPHY BY MATT MARSH





Like anyone reading this magazine, Ben Mudge, 25, is serious about fitness. As a personal trainer, fitness model, sponsored athlete and men's physique competitor, looking good is his livelihood. But it's also much more than that. In fact, it's practically a matter of life and death.

Mudge is one of more than 9,000 people in the UK with cystic fibrosis, a genetic disorder that primarily affects the lungs and digestive system.

Diagnosed at birth, Mudge immediately underwent surgery to clear his bowels after he failed to pass waste—an early sign of cystic fibrosis. "That's where the scar between my abs comes from," he explains. "They placed it very well, considering I was only about seven hours old."

The condition can take various forms, but Mudge has Delta F508. "Essentially the mucus in your body, which works like oil to keep things working properly, is soft and fluid," he tells me. "But in my body it's thick and sticky, so it makes every process 10 times harder. It's like having wallpaper paste rather than water."

The lungs are most affected. "They're the main killer," says the Belfast man. "Your lung function is progressively weakened by bacterial

infections. Once your lungs are scarred, they're scarred permanently and that portion of the lung is essentially gone. If you're lucky, you might eventually get a transplant but very few people are on the organ donor list. I've been trying to get more people to sign up because it's a life saver."

STAYING ALIVE

Diet and training are Mudge's way of fighting back against a condition that means even a mild chest infection could prove lethal.

Through hard work, he has managed to remain largely free of illness and maintained lung function that is almost unheard of in cystic fibrosis sufferers his age.

"100% lung function is someone my age, height and weight without cystic fibrosis," he explains. "Mine's at 98% at the moment, which is the best it's

SNAPSHOT

BEN MUDGE

Age: 25

Birthplace: Belfast

Lives: Belfast

Height: 5 ft 8 / 173 cm

Weight: 176 lbs / 80 kg

Career Highlight: **Seeing kids with cystic fibrosis trying to replicate what I do**

Ambition: **To get more people to be active and to realise that any obstacles in their way probably aren't as big as they think**

Training Advice: **Patience is key**

Sponsors: **Reflex, MuscleGenes and Better Bodies**

Contact: **On Twitter, @benmudgept; on Instagram, benmudgefitness**

“I FACE CHALLENGES,
BUT ALSO
TASTE REWARD”

BEN MUDGE, COACH, PT AND FITNESS MODEL



Protein, bar none

R-Bar Protein is a bar of unrivalled quality incorporating nutritionally uncompromised ingredients. Created in our bespoke state of the art factory in Sussex, every ingredient has been carefully selected providing you with the finest protein, whole nut butters, cocoa butter and carefully tailored natural flavours. **Crucially, it contains NO palm oil, soy protein, glucose syrup, gluten or GMO ingredients. It also contains no artificial flavourings or colours.**

20g
PROTEIN

10g
FIBRE

1g
SUGAR



R-Bars.com



#RtheBar

been since I was about 17. Normally lung function just deteriorates; going the other way is very rare. That's down to me."

Cystic fibrosis also plays havoc with the digestive system. For Mudge, it mainly affects his pancreas, which doesn't release digestive enzymes correctly. This means his body struggles to absorb adequate nutrients from food, particularly fats, making it difficult to gain body fat.

To those struggling to shift fat, this might sound like a dream scenario but it frequently leads to cases of malnutrition among those with cystic fibrosis.

Mudge takes digestive enzymes with everything he eats to combat the problem. "They help to a certain degree but they can't make things work perfectly," he says. "If I was without my tablets for a long period of time, I wouldn't be around for long."

Even with tablets, Mudge has to keep a high level of fats in his diet. "I cook omelettes with butter and have olive oil and a lot of fatty fish because I know fats won't be absorbed as well," he explains.

Beyond its high fat content, Mudge's diet is similar to any fitness-minded person's. An example of his daily diet accompanies this article.

He has an array of supplements. "I take CLAs, omega 3s, coenzyme Q10, vitamin D3, multivitamins, colostrum for immune system function, BCAAs pre- and post-workout, and a lot of glutamine," he says. "I'll have at least 30 g per day because it

really helps with my stomach and gut issues.

"I don't tend to have pre-workouts though. I prefer black coffee with coconut oil—simply because of the fat content. Pre-workouts don't generally contain much, if any, fat."

His diet aims to provide his body with all the nutrients it needs to function and grow while minimising the risk of illness. Yet, incredibly, health guidelines suggest he's doing it all wrong.

"The NHS recommends cystic fibrosis sufferers should eat as many calories as possible," he says. "It doesn't matter what, you just need to get the calories in. I can't believe people are being told that."

As any *M&F* reader knows, not all calories are created equal. "There are better calories from better sources," says Mudge. "Some can help strengthen your immune system, which is critical for avoiding infections."

If he didn't eat clean, Mudge would jeopardise his health. "My immune system would drop and I'd lose a lot of weight," he says. "Being overweight for someone with cystic fibrosis is the holy grail.

"Nearly everyone I know with cystic fibrosis is severely underweight because it's so hard for us to put on body fat. With gaining fat out of the question, you don't really have many avenues for putting on weight. The only reason I'm technically overweight is the muscle mass I've gained. And you can't put on muscle if you're not eating properly."

LEAN GAINS

Cystic fibrosis may shape Mudge's diet but it doesn't affect his training much. He experiences similar problems to everybody else. "Being natural, it's hard to keep making gains," he says. "But I just change things up and keep going."

UPRIGHT ROW



BEN'S TRAINING SPLIT

Monday:	Back & biceps
Tuesday:	Chest & triceps
Wednesday:	Legs & abs
Thursday:	Back & biceps
Friday:	Chest & shoulders (or rest if training Saturday)
Saturday:	Chest & shoulders (or rest if training Friday)
Sunday:	Rest

ALLMAX[®]

NUTRITION



www.ALLMAXNUTRITION.com

[/ALLMAXNutrition](https://www.facebook.com/ALLMAXNutrition) [@allmaxuk](https://www.instagram.com/allmaxuk) [/allmaxuk](https://www.youtube.com/allmaxuk)



dolphinfitness



GOLDSTAR SUPPLEMENTS



“If your shoulders are burning during the set you’re doing something right”

The issue of being natural comes up a lot. Because Mudge has cystic fibrosis and a fantastic physique, some people assume he is on something.

“It’s kind of a compliment but it’s also an insult,” he says. “The implications of taking anabolic steroids would be severe. Cystic fibrosis is a lottery of symptoms and the liver can be a big problem. Fortunately I’ve been lucky and my liver is 100% but steroids come with a huge risk of damaging your liver.

“And there are kids out there who look up to me. If I say to them they can achieve a physique like this naturally, I know that’s the truth.”

Mudge has built his physique on a high-volume training plan but has recently begun to incorporate some heavier work.

“I’m trying to put on a bit more size,” he explains. “There’s no point trying to get lean because I already am.”

His sponsors, MuscleGenes, recommended a shift to heavier lifting after studying his genetic make-up. “I always felt I grew better doing loads of reps and getting a good pump but they said I was predominantly slow-twitch and suggested I do two heavy sets at the start of my workout before going into higher reps,” Mudge explains. “I gave that a go for eight weeks and gained 2 kg. It just felt right.”

Now Mudge typically begins each workout with two sets of a big compound movement, followed by high-rep supersets to get a good pump and blast the targeted muscle group.

SEATED
FRONT
RAISE

BEN'S SHOULDER WORKOUT

EXERCISE	SETS	REPS	REST
Seated dumbbell press	4	20	-
Lateral raise	4	20	45-60 secs
Seated front raise	3	15	-
Bentover reverse flye	3	15	45 secs
Shrug	3	15	-
Upright row	3	15	45 secs
Barbell press	1-2	50*	-
Behind the neck press	1-2	50*	60 secs

*Drop the weight until you hit 50 reps. Ensure your form doesn't break.

Note: Mudge spends 5-10 minutes warming up his rotator cuffs with cables before training.

"If I'm training legs, I'll start with five for five on squats and then I'll focus on my quads and hamstrings," he says. "Everything I do then is very rep-sensitive."

"Quads have a higher concentration of slow-twitch fibres so they respond better to more reps. I'll do a DTP [Dramatic Transformation Principle] type session of 50, 40, 30, 20, 10, 10, 20, 30, 40, 50, increasing and decreasing the weight."

Hamstrings, on the other hand, are made up of more fast-twitch fibres and so respond better to fewer reps.

If he's working on upper body, such as chest, Mudge might perform two heavy sets of incline dumbbell press, then drop the weight and do a higher number of reps. "I'll do that with all the big body parts," he explains. "For smaller groups, like biceps and triceps, I stick to high volume. But I'll superset or triset everything to keep my heart rate up."

We've included Mudge's shoulder routine here, which sticks to his principle of high-volume training. "With my shoulders I generally do things as a giant set or as supersets," he says. "I'll never do just one set; I batter them. The way I see it, if your shoulders are burning during the set you're doing something right."

Mudge focuses on volume rather than weight. "I've never been concerned about the number on the plate," he says. "It's always about focus. I always try to have at least three-second negatives—it's never just drop down, push up, it's always controlled to make sure I'm stretching and contracting the muscle."

"In terms of weight, it's about can I lift it, can I control it and can I squeeze the muscle I'm trying to squeeze. If I can't I'll drop it and pick something lighter."

"Nearly everyone I know with cystic fibrosis is severely underweight because it's so hard for us to put on body fat"



BEN'S DAILY DIET

Meal 1:	Four-egg omelette with smoked apple cheese and spinach, cooked in butter to keep fat content up.
Meal 2:	Salmon with basmati rice and broccoli or spinach
Meal 3:	Chicken, white fish, tuna or turkey with basmati rice
Meal 4:	Peanut butter on rice cakes
Meal 5:	Steak with sweet potato and broccoli
Before bed:	Casein shake

Mudge's commitment to his training and nutrition has enabled him to build a physique any *M&F* reader would be proud of. It's also helped him carve out a successful career as a personal trainer, men's physique competitor and sponsored athlete. But most importantly, it's keeping him healthy and inspiring others who share his condition to take action and improve their quality of life. **M&F**

100% purity

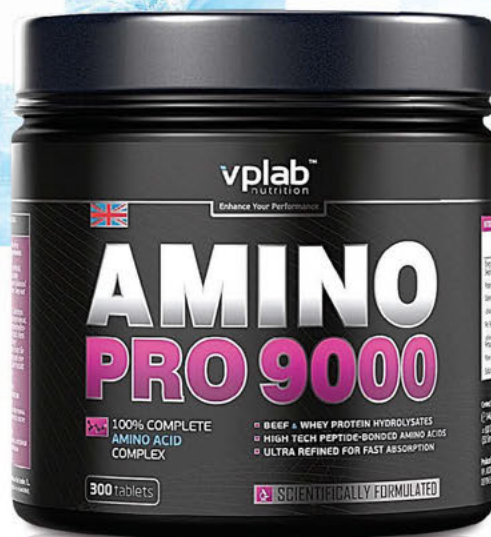
Only active ingredients

100% L-Glutamine

L-Glutamine is an amino acid which may have a powerful anabolic effect. It may help increase muscle strength and endurance, may help speed up recovery after exercise, promotes glycogen synthesis in muscles, and is the main source of energy for the immune system cells.

100% amino acid complex

VPLab Amino Pro 9000 is an amino acid complex derived from beef and whey protein hydrolysates with the most anabolic potential and the highest bioavailability. It provides maximum absorption and comprehensive muscle tissue support.



VP Laboratory - premium quality supplements from UK. **100% quality**

No additives. No impurities. No colourants. No flavourings.

100% Creatine Monohydrate

Creatine is the most vital energy source for the muscular system. Creatine increases physical performance in successive bursts of short-term, high intensity exercise. The only "real", additives-free Creatine.

100% Whey Protein Isolate

Whey protein isolate with the highest protein content is the ideal muscle building material. The purest and most easily digestible protein with the lowest possible fat and carbohydrates levels, rich in essential amino acids and BCAA.



www.vplaboratory.com



NINJA WARRIOR UK WILL HIT BRITISH TV SCREENS THIS YEAR AS PART OF THE BOOMING INTEREST IN OBSTACLE COURSE FITNESS—*BUT COULD YOU HACK IT?*

**NINJA
FIT**



BY **BRAD WARD**
PHOTOGRAPHY BY **DUNCAN NICHOLLS**



IT IS BEING DESCRIBED AS 'THE TOUGHEST OBSTACLE COURSE EVER SEEN ON BRITISH TELEVISION'.

Ninja Warrior UK, which is due to be broadcast on ITV1 this year, will fill the Saturday night void left by *Gladiators*, the 1990s series that was briefly revived in 2008, and *Total Wipeout*. Ben Shephard, Chris Kamara and Rochelle Humes will present it.

The programme, which is based on a Japanese show that has been sold around the world, will test the strength, athleticism and endurance of 250 contestants.

It's bound to make for compelling TV but obstacle course races have become increasingly popular forms of fitness and the extreme nature of this one has already spawned a series of international competitions.

Before this TV series was announced, a team known as Ninja Warrior UK Community had already been taking on the best in the world.

We went to Bristol to find out more about why this kind of training is taking off and what it entails.

Ben Silva-Jones, founder of the Ninja Warrior UK Community, finished

31st at a world event in Malaysia last year. Fellow member Tim Shieff captained Europe to victory in the 2014 *Ninja Warrior Special: America v Europe*. Shieff also set a record for the fastest ever stage one run.

The British ninjas are from diverse backgrounds. "We draw on experience from calisthenics, gymnastics, climbing, parkour and other subcultures," says Silva-Jones.

"A parkour athlete may have great agility but may not have the grip strength of a rock climber. Therefore we train a mixture of methods to cover everything."

The courses include imaginatively titled challenges such as salmon ladders, devil steps and bridge of blades. The training, however, requires little equipment and anyone prepared to invest time and learn new skills should develop an impressive physique and have a lot of fun.

"There is an unlimited area of fitness to progress," says Silva-Jones. "When you put all the training elements together you get a unique athlete."



CANNONBALL ALLEY

THE GAME HAS CHANGED

MULTI-AWARD WINNING SPORTS NUTRITION



PROTEIN FLAPJACKS
ADVANCED PROTEIN SNACK FORMULAS

RED-CELL™
BI-CELL TECHNOLOGY

WHEY PROTEIN 80 SF+
ULTRA PURE PERFORMANCE WHEY PROTEIN

**REGISTER NOW & GET
FREE WHEY PROTEIN WORTH £9.99**

Register with code **SS250** and spend £10 on your first order.
Only new customers and while stocks last.



WWW.THEPROTEINWORKS.COM



TPW™ advocates a varied & balanced diet with regular training. THE PROTEIN WORKS™ is a trademark of Class Delta Ltd.

THE PROTEIN WORKS™
PURE | PROVEN | PERSONAL

"WE DRAW ON EXPERIENCE FROM CALISTHENICS, GYMNASTICS, CLIMBING, PARKOUR AND OTHER SUBCULTURES"



BOX JUMP



1 CHIN-UP: Essential for developing the upper body strength and explosivity required for obstacles like the salmon ladder.

2 BOX JUMP: A great plyometrics exercise to help develop power in the legs to get the height you need for obstacles like the jump hang.

3 PRESS-UP: A staple body weight exercise with plenty of variations. The diamond push-up puts the triceps to work more and conditions the arms for climbing obstacles such as the devil steps.

4 PISTOL SQUAT: A useful exercise for developing strength and balance that will help see you across the quintuple steps and the bridge of blades.

5 PLANK: Variations of this isometric hold provide ideal preparation for obstacles such as the spider wall and body prop where muscular endurance is tested.

6 DEAD HANG: So many of the obstacles require a level of grip strength that the average athlete does not have. This exercise will get you ready for the likes of the cliffhanger, globe grasper and cannonball alley. Try to mix up your grip training with anything you can from soft balls to towels.

Silva-Jones says this hybrid form of training is effective for size and conditioning. "I have more muscle definition after doing this than I had doing conventional training and it is more fun and rewarding," he says.

"For people that go to the gym and lift weights to enhance their physique the training can become one-dimensional. Ninja Warrior and bodyweight training are always evolving."

You don't need the skills of a circus acrobat or gymnast to start. You just need to work on your fitness and master a few basic bodyweight moves.

"If you can do a handstand, you can learn to hold it for a bit longer," says Silva-Jones. "After that you can walk on your hands; after that can you do a handstand press-up and so on.

"You need to set realistic goals. You might not be able to do 15 weighted muscle-ups but you might be able to do 10 chin-ups when before you could only do three. Within 3-6 months, anyone committed to doing this will see progress."

The team nature of Ninja Warrior can help to improve technique, and the fun of the obstacle course is good for motivation. **M&F**

TRAIN LIKE A NINJA

The following workout is designed to equip you with the speed, agility, power and endurance of a ninja warrior.

Aim to complete the circuit three times, attempting to go faster each time but without compromising form. Watch out for how the simplest exercise can become a lot more challenging as you begin to fatigue—just as the obstacles on the course do.

EXERCISE	BEGINNER	INTERMEDIATE	ADVANCED
Upper body power	Chin-ups x 5	Clap chin-ups x 5	Muscle-ups x 5
10 m sprint	-	-	-
Box jumps x 10	30 inches	36 inches	42 inches
10 m sprint	-	-	-
Press-up	20 x regular	20 x diamond	20 x clap push-ups
10 m sprint	-	-	-
Pistol squat (each leg)	x 5	x 8	x 10
10 m sprint	-	-	-
Plank	1 min	2 min	3 min
10 m sprint	-	-	-
Dead hang	30 secs	60 secs	90 secs

NOTE: Do 3 sets straight through, no rest

GET READY FOR: **FUNNBAR MANIA**

Let me tell ya brother...
this is the new way
to eat your **protein!**

FUNNBAR™ is an easy, delicious and quick way to get your protein—on the go, whenever or wherever you want. FUNNBAR™ offers the ultimate in convenience when it comes to protein intake. No time to mix a shake or eat a meal? No problem. Just open a FUNNBAR™.



For more funn go to: funnbar.com



DEVIL STEPS



SALMON LADDER



NINJA OBSTACLES

Here are some of the weird and wonderful challenges Ninja Warrior entails.

- 1 SALMON LADDER:** Grab a loose bar that rests on the notches of two parallel supports (see picture, above right) and use your momentum to climb, raising the bar from notch to notch until you reach the top.
- 2 JUMP HANG:** Leap forwards off a springboard onto the underside of a cargo net, then either climb over or underneath it while avoiding the water below.
- 3 DEVIL STEPS:** This is a pyramid of ascending and descending steps with a triangular peak. You must carry your body weight up and down each side using a monkey bar technique.
- 4 BRIDGE OF BLADES:** The bridge rotates freely around a central lengthwise axis. It has four panels and you must time your run to cross the bridge without missing the foot panels.
- 5 BODY PROP:** Make a bridge with your body across a gap between two parallel walls then shuffle up to the top.
- 6 CLIFFHANGER:** Cross three narrow ledges that only have enough space to use your fingertips to support your body weight.



PISTOL SQUAT

"I HAVE MORE MUSCLE DEFINITION AFTER DOING THIS TYPE OF TRAINING THAN CONVENTIONAL TRAINING"



CLIFF HANGER

GET INVOLVED

Facebook:

www.facebook.com/ukninja-warrior

Website www.ninjawarrioruk.com

See the video that accompanies the feature at

www.muscle-fitness.co.uk



MAXIMUM PERFORMANCE

UNBEATABLE PRICES!

Looking for the ultimate gains from your supplements? We guarantee to provide the finest natural products, formulated without compromise, available at unbeatable prices, all backed by over 30 years nutritional expertise. FREE* UK (Mainland) delivery is available on orders over £50.

And we offer a 100% satisfaction guarantee, plus a price promise. It's easy to see why over 99% of our customers re-order!

Still not convinced...Simon Cohen, IFBB Pro, EFBB British Champion, twice Mr Britain, twice Mr Universe, uses and recommends MUSCLEFORM products. To order or for details of the complete product range, please visit our website or call the number below.

MUSCLEFORM

performance nutrition

NOW AVAILABLE
NATURAL STRAWBERRY
FLAVOURED PROTEINS



FEATURED PRODUCT

PRO-ISOBOLIC™ (93% Protein) engineered blend of fast, medium and slow release protein isolates. **VERY LOW LACTOSE** and **LOW FAT** easy to mix and a great taste.

'Time Release' formulation promotes an extended 'Anabolic Window' for maximum results.

Why not try our delicious New Natural Strawberry Flavour.

Out Performs Single Source Protein!

*Dry Basis - Unflavoured. Available flavoured or unflavoured.

BELOW IS A SMALL SELECTION OF OUR PRODUCTS AVAILABLE. FOR THE COMPLETE RANGE, PLEASE VISIT OUR WEBSITE OR CALL

AVI-PRO XV™ (83% Protein) **PURE WHEY CONCENTRATE**. Premium quality, easy mix and a clean taste.

AVI-PRO 94™ (94% Protein) **PURE WHEY ISOLATE**. **VERY LOW LACTOSE** and **VERY LOW FAT** (less than 1%) easy mix and a clean taste.

VI-PRO 88™ (88% Protein) **TIME RELEASE** protein. Easy mix and a smooth taste.

*Dry Basis - Unflavoured

UBER OATS™ **FINE OAT POWDER**
Great Source of low GI complex carbohydrates. The ideal breakfast replacement.

UBER-PUMP™ **PRE-WORKOUT** synergy of ingredients, for the ultimate pre workout pump, strength and recovery.

CREAPURE® Creatine Monohydrate - finest German material from the world's leading provider of creatine products.

L-GLUTAMINE™ **ULTRAPURE** best prices

V-MASS XTREME™ **ALL-IN-ONE** power packed synergy of PROTEIN Isolate, carbs, creatine, ALA, Glutamine, HMB, Taurine, D-Ribose plus more exclusive results.

BCAAs Purest branch chain aminos at the optimum ratio. Powder or tablets.

WE WON'T BE BEATEN ON PRICE...Please see our website for price match details.

CALL US NOW: 01508 530813

www.muscleform.co.uk

MUSCLEFORM - Aviform Ltd, FREEPOST NATE944, Long Stratton, NORWICH, NR15 2BR

FREE DELIVERY

STANDARD UK MAINLAND ONLY

for orders over £50. Under £50 is only £2.95. Express Delivery is £4.95. Standard UK Delivery time is 3-4 working days. Express Delivery 1-2 working days.

Featured product results may vary as used in conjunction with diet and training regime. Prices subject to change without notification. 12v1 E&OE.



COVER

STREET

**TOP BRITISH COVER MODEL
KIRK MILLER REVEALS
HOW THREE MONTHS OF
STRONGMAN TRAINING
WILL NOT ONLY
HELP YOU SET NEW
PERSONAL BESTS
BUT ALSO IMPROVE
YOUR PHYSIQUE.**



MODEL 0 GIVEAWAY

Part 2

BY BEN KENYON /// PHOTOGRAPHY BY CHRISTOPHER BAILEY

Cover model Kirk Miller has the perfect physique: chiselled body, six-pack abs and great looks.

So you might wonder why he temporarily tore up the programme that had helped him look like that and try strongman training instead.

But there was a reason he swapped biceps curls for Atlas stones: to get his best gains ever.

His three-month strongman makeover, which was achieved with guidance from world deadlift champion Benni Magnússon and World's Strongest Man finalist Terry Hollands, enabled him to add some size so when he dieted down again he would look even more impressive.

Last month, in Part 1, we introduced you to the principles behind Miller's strength plan and the first four-week training block.

Part 2 this month sees the emphasis shift to power training. Miller also talks about the food he consumed to fuel his workouts.

Whether you are serious about strongman or just want to see your best ever strength and size gains, this could be the plan for you.

AESTHETICS TO STRONGMAN

As a cover model, Miller used to train purely for a lean, aesthetic look. He followed a standard six-day split—chest one day, back another, then hamstrings and quads, shoulders and arms.

"I am a big fan of tempo work and negatives—it would be 8-12 reps with drop sets and supersets," Miller says.

"Sometimes I would not follow a set plan. I'd do a bit of this and a bit of that to get a maximal pump until my muscles were fatigued."

His strongman training could hardly have been more different. He adopted a regimented four-day split with one simple goal—to lift as heavy as humanly possible.

He split between chest and biceps, back and triceps, shoulders and calves then quads and hamstrings—with some strongman events and core training thrown in.

"The difference between cover model



training and strongman training is that with strongman you are not training for the aesthetic look of your abs," he says. "You're training for function and a strong base for the big lifts.

Strength and power, says Miller, is about the total load lifted—so getting stronger inevitably means increasing this load.

"If you do 5 sets of 10 reps, you total up the overall load and the aim for the following week is to make sure your total load is more.

"It is also imperative to make sure your first lift is heavier than the week before."

He says the mental side of strongman is crucial because you have to train brain as well as body.

"With strength and power training a lot of it is in the mind," he says. "The main difference between aesthetics and this is that there's less margin to be able to switch off mentally because if you're doing only a few reps with absolute maximum weight you can't daydream. Everything has to be on point. My

mental capacity and focus has really increased."

BIG EATING

Think you can eat salads and smash max squats? Think again. Strongmen live by the rule "eat big, lift big".

"My diet compared to what it was when I started is so very different," says Miller. "A lot of people in the industry fall into the trap of thinking they have to starve themselves to be ripped.

"The first few weeks of strongman training I was eating too clean because it was hard to get out of the mindset of wanting shredded abs. But you realise you can't stress too much about keeping 5% body fat if you're trying to lift heavy weights. It's not going to happen."

Deadlift king Benni Magnússon provided some useful advice.

"Benni's biggest advice was 'you've got to eat'—you're not going to get more powerful if your glycogen levels are low.

"I saw him three weeks into it and told him about my food and he told me that on two days a week, on legs and

EUROPE'S LARGEST CONSUMER HEALTH & FITNESS EXPO



FLEX LEWIS

**SCITEC
NUTRITION**

BEN PAKULSKI

CELLUCOR
BECAUSE RESULTS MATTER

CALUM VON MOGER

BODYPOWERTM EXPO 2015

15TH - 17TH MAY 2015, NEC, BIRMINGHAM

TICKETS FROM £19.95 | BOOK NOW AT:

WWW.BODYPOWEREXPO.CO.UK

back days, he would fill up on some form of fast-acting carb like dextrose or maltodextrin.”

Miller’s food intake subsequently went “through the roof”. His protein consumption stayed roughly the same but the amount of fat and carbs he ate skyrocketed by more than 1,000 calories a day.

“Your jaw will drop at the amount of food I had to eat,” he says. “Nearly 12 kg of potatoes per week—400 g of white potato four times a day on top of 160 g of oats in the morning and then 120 g of fast carbs post-workout.

“It was a massive increase in simple sugars like maltodextrin—directly after I finished my last big lift I would throw

in 60 g of simple sugars. I had never had that before.”

In total Miller ate six full meals a day along with pre- and post-workout nutrition.

“I ate more red meat and more fats like nuts and avocado,” he says. “My fats increased because you need plenty of protection for your joints.

“I generally ate clean but a few times a week I ate what I wanted just to get the calories in.”

Miller says if you’re not getting visibly stronger or increasing weight by 1-2 lbs a week you should increase food intake.

To follow Kirk Miller’s Strongman Diet Plan go to www.muscle-fitness.co.uk

TRAINING WEEKS 5-8

The first phase of Miller’s 12-week plan was about building as much muscle as possible with low reps and high volume. However, the second phase is about strength and power—working up to a one-rep max over the four weeks.

It is a 5,3,1 variation-type method. In the first week you do 3 sets of 5 reps on the big lifts, then in week two drop to 3 sets of 3 reps.

Miller then did 2 sets of 2 reps in week three and in the final week went for a one-rep max.

“It is all about max strength and max power. Each phase ties in with each other,” he says. “If your brain is used to doing 6 sets of 6 reps on deadlift with two minutes rest and then all of a sudden you’re taking that two minutes rest away and having longer rest, less sets but heavier weights, you cannot fail to get stronger.”

Many people waste too much energy on warm-up sets and should focus more on completing all their working sets.

Then, he says, the power of the mind takes over. He adds: “You have to visualise yourself doing it. Your abs have to be tight; everything has to be locked in.”

WEEKS 5-8: POWER WORKOUTS 5,3,1 VARIATION AND ASSISTANCE EXERCISES

CHEST AND BICEPS

CHEST

Perform 4-5 warm-up sets on the following rep ranges and approximate weights up to first working set weight.

10 reps @ 40%, 5-6 reps @ 60%,
3-4 reps @ 70%, 2 to 3 reps @ 80%

A1) Incline barbell chest press
3 x 5 reps, Tempo 2:2:0, Rest
3-5 minutes

B1) Incline dumbbell chest press
4 x 10 reps, Tempo 2:2:0, Rest
60-90 seconds

C1) Incline cable chest flye 3 x 10 reps,
Tempo 2:2:1, Rest 60 seconds

D1) Pec deck flye 3 x 10 reps, Tempo
2:2:1, Rest 60 seconds

BICEPS

Perform 2-3 warm-up sets on the following rep ranges and approximate weights up to first working set weight.



**INCLINE CABLE
CHEST FLYE**



"I'M JACK3D!"

- ANTHONY THOMAS // TEAM USPLABS ATHLETE*



www.USPlabsDirect.com

*10 reps @ 40%, 5-6 reps @ 60%,
3-4 reps @ 70%*

E1) Standing straight-bar curl
3 x 10 reps, Tempo 2:2:1, Rest
60-90 seconds

F1) Zottman Curl 3 x 10 reps, Tempo
2:2:0, Rest 60-90 seconds

BACK AND TRICEPS

BACK

Perform 4-5
warm-up sets on
the following rep
ranges and approxi-
mate weights up to first working set
weight.

*10 reps @ 40%, 5-6 reps @ 60%, 3-4
reps @ 70%, 2 to 3 reps @ 80%*

A1) Deadlift 3 x 5 reps, Tempo 2:2:0,
Rest 3-5 minutes

B1) Bentover barbell row (overhand
grip) 4 x 10 reps, Tempo 2:2:0,
Rest 60-90 seconds

C1) Pull-up (palms facing in)
3 x 10 reps, Tempo 2:2:0,
Rest 60-90 seconds

D1) High-rope face pull (off cables)
3 x 10 reps, Tempo 2:2:1,
Rest 60 seconds

TRICEPS

Perform 2-3 warm-up sets on the
following rep ranges and approximate
weights up to first working set weight.

*10 reps @ 40%, 5-6 reps @ 60%,
3-4 reps @ 70%*

E1) Close-grip bench press
3 x 10 reps, Tempo 2:2:1,
Rest 60-90 seconds

F1) Overhead triceps cable bar
extension 3 x 10 reps, Tempo 2:2:1,
Rest 60-90 seconds

SHOULDERS AND CALVES

SHOULDERS

Perform 4-5 warm-up sets on the
following rep ranges and approximate
weights up to first working set weight.

*10 reps @ 40%, 5-6 reps @ 60%,
3-4 reps @ 70%, 2 to 3 reps @ 80%*

A1) Military press 3 x 5 reps, Tempo
2:2:0, Rest 3-5 minutes

B1) Reverse pec deck flye 3 x 10 reps,
Tempo 2:2:5, Rest 60 seconds



ZOTTMAN CURL





SINGLE ARM BENTOVER DUMBBELL REVERSE FLYE



C1) Bentover dumbbell reverse flye (single arm) 3 x 10 reps, Tempo 2:2:0, Rest 60 seconds

D1) Dumbbell shoulder press 3 x 10 reps, Tempo 2:2:0, Rest 60-90 seconds

E1) Leaning side lateral raise 3 x 10 reps (each arm), Tempo 2:2:0, Rest 60 seconds

F1) Posterior bar shrug or dumbbell shrug 3 x 10 reps, Tempo 2:2:1, Rest 60-90 seconds

CALVES

Perform 2-3 warm-up sets on the following rep ranges and approximate weights up to first working set weight.

10 reps @ 40%, 5-6 reps @ 60%, 3-4 reps @ 70%

A1) Standing calf raise (Smith machine and off a raised platform) 4 x 10-12 reps, Tempo 2:2:1, Rest 60 seconds

B1) Seated calf raise (toes out) 4 x 15 reps, Tempo 2:2:1, Rest 60 seconds



MILITARY PRESS



**“YOUR JAW WILL
DROP AT THE
AMOUNT OF
FOOD I HAVE
HAD TO EAT.”**

QUADS AND HAMSTRINGS

QUADS

Perform 4-5 warm-up sets on the following rep ranges and approximate weights up to first working set weight.

10 reps @ 40%, 5-6 reps @ 60%,

3-4 reps @ 70%, 2 to 3 reps @ 80%

A1) Squat 3 x 5 reps, Tempo 2:2:0,
Rest 3-5 minutes

B1) Single-leg weighted bench
step-up (supporting foot
never touches bench
throughout lift, and supporting
heel doesn't touch floor)
3 x 10 reps, Tempo 2:2:0,
Rest 60-90 seconds

C1) Leg press 4 x 10 reps, Tempo
2:2:0, Rest 60-90 seconds

D1) Single-leg extension 3 x 10
reps (each side), Tempo
2:2:0, Rest 60-90 seconds

HAMSTRINGS

E1) Stiff-leg deadlift 4 x 10
reps, Tempo 2:2:1, Rest
60 seconds

F1) Single-leg hamstring curl
4 x 10 reps (each side),
Tempo 2:2:0, Rest 60
seconds

STRONGMAN AND CORE

STRONGMAN

Perform a variety of light
warm-up sets on upper body and
lower body exercise to warm up,
then move on to yoke walk.

A1) Yoke walk—technical practice
5 to 7 sets x 50 metre walk @
50 to 75% of competition
weight, Rest 5-8 minutes

B1) Atlas stones—technical practice
3 to 5 sets x 1 rep @ 80 to 100 kg,
Rest 4-7 minutes

ABS AND CORE

C1) Abs rollout 3 x 12 reps, Tempo
2:2:0, Rest 45-60 seconds

D1) Weighted Russian twist 3 x 60
seconds continuous, alternating
each side, Rest 60 seconds

E1) Alternating knee-to-elbow front
plank 3 x 10 reps (each side),
Rest 60 seconds **M&F**

**"YOU ARE TRAINING SOLELY
TO BE ABLE TO LIFT THE
MAXIMUM AMOUNT OF
WEIGHT YOU CAN."**



UNSTOPPABLE GROWTH FUEL

All-in-one mass building complex with superior 1:3.5 proteins to carbs ratio

An outstanding protein matrix to assist with long term muscle growth & recovery. Carbo-complex with long-chained carbohydrates & prebiotics for the best energy supply and improved digestion. Power-packed with 10 vitamins & premium quality CreapureTM creatine.

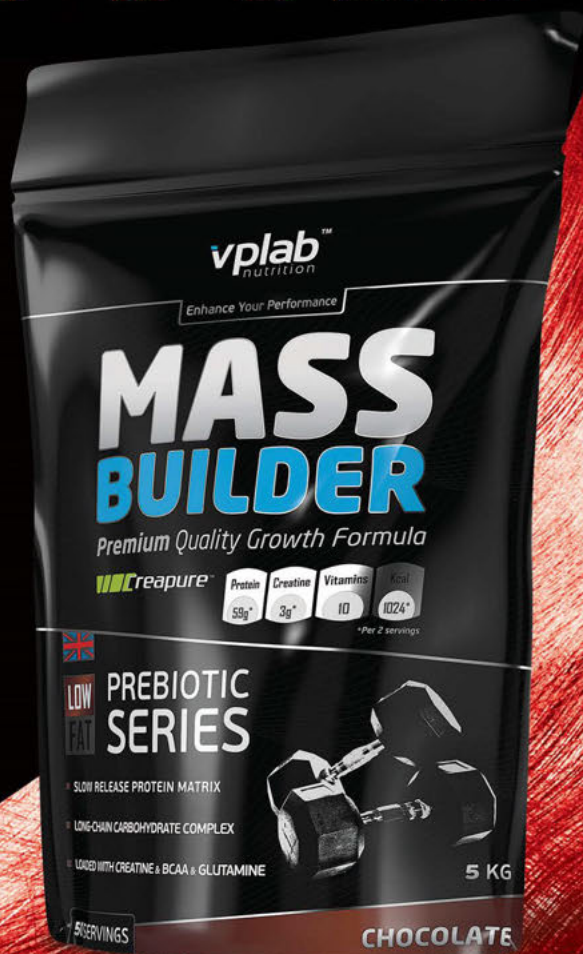
MORE MASS!*
MORE POWER!*
MORE MUSCLE!*

5 KG BAG



www.vplaboratory.com

*Results may vary. For best results, use product in conjunction with rigorous training and an appropriate diet for your training goals





**MYTH
BUSTERS**

FRESH FOOD

Mark Gilbert continues his series tackling common fitness misconceptions by investigating whether the way food is cooked or stored really makes a difference

If I cook my vegetables, I'll lose too many nutrients. Heating damages omega-3 essential fatty acids. Frozen isn't as healthy as fresh. Microwaving is unhealthy.

I hear things like this all the time and over the years I've done a good bit of research to find the facts behind these kinds of concerns. What I've discovered is often surprising, interesting and useful, so this article is designed to tackle these issues.

Unfortunately, it turns out there isn't one simple answer, such as avoiding a certain method of preparing, cooking or storing your food. In fact, you could cook two different foods in the same way and make one healthier and more nutritious and the other less so.

As any good physique athlete should be aware, fruits and non-starchy vegetables are not only the most nutrient-dense foods in our diets but also help keep us full without contrib-

uting much energy to our diets. They also contain a variety of healthy phytochemicals, which can decrease the risk of heart disease, diabetes and cancer, and even improve performance and lower body fat.

However, how they're stored and prepared can have significant effects on these benefits, making them either healthier and their nutrients more easily absorbed, or eliminating them entirely.



POTATOES

Many gym-goers and bodybuilders consider these purely an “off-season” food, but potatoes can be part of a healthy diet as they contain fairly high levels of vitamin C, most B vitamins and several minerals. One aspect that hasn’t been well reported is that, along with bread, biscuits, pastry and most other brown starchy foods, when potatoes are heated, they form a chemical called acrylamide. This is thought to increase the risk of cancer when eaten regularly over many years and it is the process of cooking that creates it.

As the first example of how different cooking methods can have differing effects on our health, researchers in Poland and China have found that microwaving potatoes causes more acrylamide formation than frying or baking—so keep the spuds out of the microwave.

BEETROOT

Beetroot is a healthy, low GI vegetable that has recently found fame thanks to its high nitrate content, which studies have shown can improve exercise performance. The good news is that beetroots retain almost all of their antioxidant effects when cooked. The bad news is that food scientists in Italy found that if you boil beetroots in water they lose a lot of nitrate, so you can say goodbye to many of the exercise and blood flow benefits. However, if you

steam or microwave them (with minimal water), you keep just about all the nitrates and even increase antioxidant activity. That’s right, increased antioxidants. And this isn’t the last time you’ll hear that in this article.

CABBAGE

This is one of the cruciferous vegetables, thought to be amongst the healthiest groups of veg. Cabbage is particularly high in glucosinolates, which are pungent-tasting chemicals high in sulphur and believed to help ward off cancer.

A research project between five Chinese universities showed that stir-frying substantially reduced the healthy constituents of the cabbage but steaming had a much less drastic effect. This led the researchers to conclude that steaming was best; as with many foods, minimal water and a short cooking time gave the best results.

BROCCOLI

This is the favourite cruciferous Tupperware filler of any bodybuilder or serious physique athlete...and quite rightly so. Not only does broccoli have a high fibre content and high levels of vitamin C with very few calories, it also contains I3C (indole-3-carbinol, which produces DIM or

“Diindolylmethane” in the body when eaten). I3C and a substance called sulforaphane are thought to be responsible for some of the cancer-preventing properties of cruciferous vegetables. I3C is also believed to affect oestrogen metabolism in a way that reduces the unwanted effects of oestrogen and also increases the excretion of certain oestrogen metabolites from the body. As it turns out, once again, steaming retained more of the active nutrients (including I3C) when compared to a direct heat method like stir-frying. Other research from the Department of Food Science at the University of Illinois shows that if you are going to boil or microwave your broccoli, if you do it for less than a minute—ideally about 30 seconds—you can get similar effects to steaming. The best steaming time is one to three minutes. In fact, the levels of some healthy constituents



LOOK LIKE A PRO



FROM INSIDE OUT

The first multi-functional vitamin with a 100% transparent label. NO SECRETS, ZERO HIDDEN BLENDS. Just a complete profile to give your body the micro nutrients it needs.



TRAIN LIKE A PRO

actually increase with these short cooking times but again, the key is heating in the presence of minimal water.

Because broccoli is such a poster boy for healthy food, there is even some interesting research on the effects of freezing it, so for those of you who use frozen broccoli, listen up. First the good news, freezing food really does result in higher levels of vitamins and minerals when compared a typical veg in the fresh produce section. Unfortunately, most frozen food must be blanched (boiled then cooled) before freezing and the guys in the lab coats at the University of Illinois have determined that this destroys an enzyme that produces the healthy sulforaphane in broccoli. This could also affect the I3C levels. So while it used to be thought that freezing was superior because it preserved micronutrients (vitamins and minerals) better in the time between harvest and kitchen table, it now seems that some lesser known beneficial components of vegetables get lost with freezing.

TOMATOES AND LYCOPENE

As many readers will know, the carotenoid lycopene, found in high concentrations in tomatoes, has been studied for its role in reducing the incidence of cancer and having other health benefits. Many will also know that it is actually better absorbed when tomatoes are cooked versus raw. In fact, this is not surprising because many foods yield more nutrients and phytochemicals when they are cooked. So lycopene is quite stable in foods that have been heated or frozen. However, there are two additional considerations here.

1. If you choose to use a lycopene supplement (perhaps if you don't like tomatoes), lycopene levels can vary greatly when processed into powder, so do your homework and I would advise contacting the manufacturer to ensure that they have taken steps to maintain lycopene levels and have had it independently tested.

2. Lycopene should be consumed with fat or oil, which substantially increases its uptake from the gut.

BERRIES

These are close to my heart because berries really are superfoods. They're low GI (despite their sugar content) — a fact that I wish some of the ill-advised media would grasp—and have numerous other



GETTY IMAGES

FEED THE MACHINE!

ANTH BAILES | "The FREAK"
IFBB PRO & PHARMAFREAK Athlete



NEW RESEALABLE BAG!

PROTEIN FREAK™ **df**
MUSCLE-BUILDING PROTEIN

Supports the maintenance
and growth of muscle!

High protein powder
mix with sweetener.

Aspartame-Free
Net Wt. 2 kg

FOR UK AND EUROPEAN TRADE ENQUIRIES,
CONTACT BODY TEMPLE ON 01782 281222.
EMAIL: INFO@BODYTEMPLE.CO.UK

AVAILABLE AT

**HARD CORE GYMS, PROGRESSIVE
SPORTS NUTRITION STORES &
LEADING ONLINE RETAILERS**



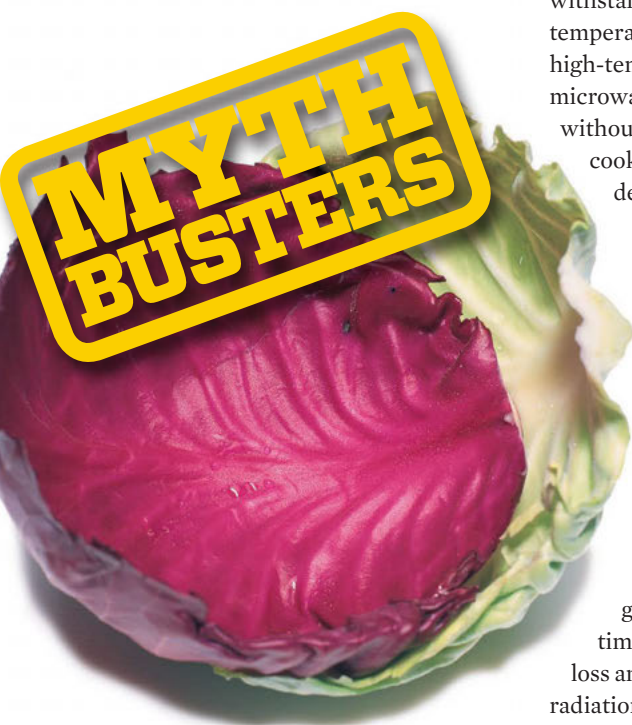
Use PharmaFreak products in conjunction with exercise and sensible diet to achieve optimal results.

PHARMAFREAK™
PHARMAFREAK.COM

health benefits. The cool thing about berries is that, according to food scientists at the University of California, freezing them doesn't seem to have any negative consequences and the researchers at the Department of Food Science at Louisiana University actually concluded that heating them seems to **increase** their health-promoting effects! This is one of the reasons I have a berry smoothie protein shake from a carton in the morning because as long as it is a pure berry product, with nothing added or removed, the processing is actually a "good" thing as the healthy constituents may be more bioavailable.

LEAFY VEGETABLES

This one is straightforward: don't boil them and use minimal water. Brief microwaving and steaming may actually enhance their healthy, antioxidant properties.



MEAT AND PROTEIN

So that covers the fruits and veg but what about protein foods and fats? OK, the main potential health issue with meat is that when you cook it, if it goes brown and especially dark brown, this

produces chemicals called heterocyclic amines, which are cancerous if eaten regularly in significant amounts. This is probably why the only studies that show meat to be unhealthy are those that include the processed meats (such as bacon, sausages, etc), which are traditionally cooked to brown. So my advice here is to stick to eating overly browned, processed or barbecued meats only occasionally and not daily. Also, Harvard scientists have shown that cooked meat leads to better gains in lean mass in mice than raw. And for those who eat nuts, roasting makes their protein more bioavailable (and can reduce "gaseous" side effects of eating them), according to nutrition scientists at North Carolina State University.

FATS AND OILS

Most readers will be happy to know that healthy fats such as olive oil can withstand the heat of most cooking temperatures outside of hot frying and high-temperature baking and can be microwaved for up to three minutes without degradation. Fish oils can be cooked normally, without fear of degradation or loss of their health properties but no good research seems to be available on omega-3s like alpha-linolenic acid (as found in flax and chia).

MICROWAVING

Finally, a quick note on microwaving. This method simply cooks food by friction rather than by exposing it to heat, so there is nothing "evil" going on, just a faster cooking time and actually "less" nutrient loss and no evidence of harmful radiation.

CONCLUSION

So that's it—a review of pretty much all of the published research on how the way we handle food affects its nutritive and health properties. As you can see, it is a mistake to simply state that raw food or fresh food is better than cooked or frozen. The fact is that it depends upon



the food and even what your goals are in eating that food. And if the above wasn't enough evidence, here's one final piece of the research puzzle: when the German Institute of Human Nutrition looked at people on a high raw fruit and vegetable diet, they found that in about half of them, their "good" (HDL) cholesterol was too low, their homocysteine levels (which reflect heart disease risk) were higher and almost 40 per cent of them had vitamin B12 deficiency. So it is just as easy to make a case **against** eating too many raw foods as it is to make a case **for** it! One thing I will recommend universally though, is to buy local produce when you buy fresh as it has been exposed to fewer environmental influences that may reduce its nutritional value. **MBF**

MARK GILBERT has a B.Sc. in nutrition and is a CISSN certified sports nutritionist. He's been involved in the sports nutrition industry for 20 years and is a director of *MuscleGenes.com* and *FitnessInventor*.

STOCKPHOTO

BEPowerful®

KEEP IT 100%



PURE WHEY PROTEIN ISOLATE & HYDROLYSATE

ISO HD™ is the highest quality and purest protein yet, with zero fillers, delivering 25 grams of ultra premium 100% whey protein per serving. What really sets ISO HD™ apart from the competition, besides great results, is the incredible flavor! Unlike most isolates that are thin and watery, ISO HD™ is rich, thick and delicious! Once you try it, you'll never go back to your old protein.



REAL FIN MUS

**CITY BANKER TOM EXTON PROVES
YOU CAN HAVE A HECTIC,
HIGH-FLYING CAREER AND
STAY RAZOR-SHARP**

BY BEN KENYON

PHOTOGRAPHY BY SIMON HOWARD

ANCIAL CLE



N

ot enough hours in the day to train? Too busy to get to the gym? Try telling that to London banker Tom Exton. Exton, 27, balances a career in

banking and finance with his own online fitness venture—and still manages to stay shredded.

By day, he deals with multi-million pound sums for a global bank in Canary Wharf. By night, he and his twin brother, along with two friends, run LDN Muscle, which helps clients achieve body transformations. If Exton's not at his desk, he's designing programmes, writing articles or creating videos for his website. From waking at 5.30am until getting into bed after midnight, he barely has a minute free. So if anyone has an excuse not to train, he does—yet he has a physique that most M&Fers would be proud of. With an impressive combination of discipline and time management, he manages to squeeze in 30-minute lunchtime workouts and some mornings does cardio as well—even if he has to send emails while doing so.

Exton's convinced more busy lives could benefit from fitness with the right approach so we caught up with him in the City during a rare gap in his schedule to discover how to get fit in double-quick time. He also agreed to devise a 30-minute biceps blitz for busy readers to try in their lunchtimes.

MUSCLE&FITNESS: How long have you been training?

TOM EXTON: I've been training for nearly six years. I was at university and to be honest, I was bored. I had so much time on my hands, I joined the gym to have something to do during the day. I messed around for the first 18 months or so. I was just going in and snatching at things without really knowing what I was doing. Then I started really getting in to it.

What's it like working in the City?

Working in finance often gets talked up but in reality the majority of the time you're sitting at a computer tapping buttons, making fairly mundane decisions that assist the bank to make financial gains. The slightly more exciting *Wolf of Wall Street* stuff doesn't really exist any more.



What is your average day like?

I'm pretty much working flat out. I get up in the morning and I'm just doing emails and social media—eating breakfast with one hand and doing work with the other. Sometimes I will do half an hour of fasted cardio at 5.30am—just low-intensity stuff before breakfast. I try and squeeze in some emails when I'm doing that. I have my office in my pocket all the time. Sitting on the train I'll be doing social media and emails, helping people with programmes and dealing with transformations. I start work at 8.30am and don't leave my desk until lunchtime. Then over lunch I am training.

TOM EXTON

Age: 27

Height: 185 cm (6 ft 1in)

Weight: 78 kg (172 lbs)

Born: Hammersmith, London

Lives: Richmond, London

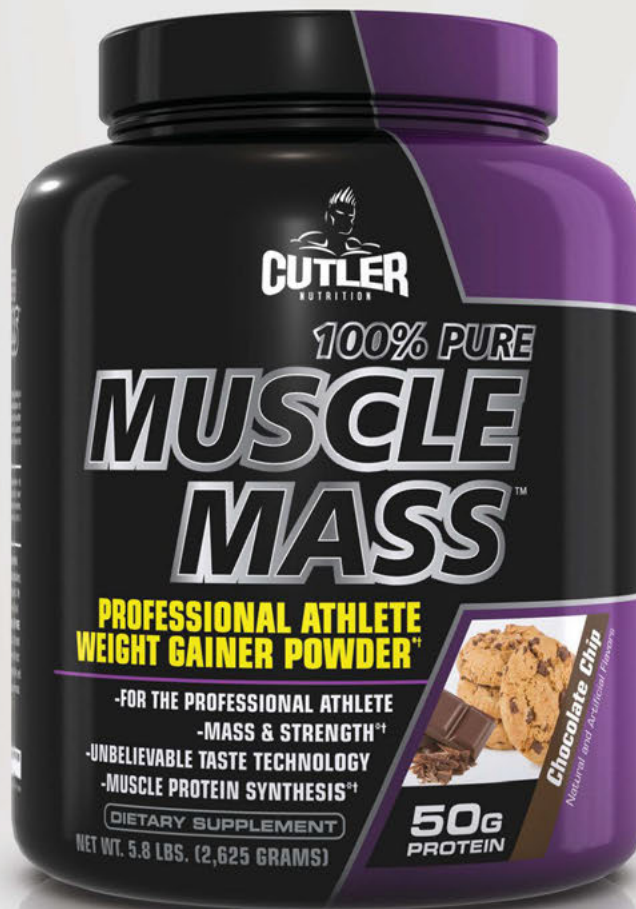
Ambition: To be as healthy and aesthetic as I can naturally

Training advice: Train with intensity, don't wait minutes between sets.

Sponsor: Founder of LDN Muscle

Contact: Twitter and Instagram @LDN_Muscle; Facebook LDN Muscle.

THE MASSTER



A LESSON FROM A PRO

Be so great, they can't ignore you. 100% Pure Muscle Mass™ is the 'Gainer formula' of the Pros. Stuck in a plateau? Can't seem to pack on that quality muscle mass? Let the

MASSTER get to work. To get big, you have to train big and supplement big.

This delicious gainer protein mixes effortlessly and serves up the protein, carbs, and other key nutrients that your body needs to build muscle.

Pack on the pounds the right way with 100% Pure Muscle Mass™.



TRAIN LIKE A PRO



WWW.CUTLERNUTRITION.COM

How do you fit that in?

I do emails on the five-minute walk to the gym and all the way through the session. I am doing stuff on my phone between sets. I time it—I have 30 seconds to do this tweet or message. It is about finding minutes and seconds to fit it all in. I am normally back at my desk until 5.30 to 6pm and during the entire commute home I'm typing stuff out. Then my whole evening is just doing LDN Muscle stuff—producing a YouTube video or something like that. It is just full on. I will be up until midnight or I am doing stuff.

How do you train?

The four of us that run LDN Muscle train differently. The training plans have a hypertrophy week, a strength week and a volume week. It varies so your body doesn't adapt. We have a bulking plan that has a few power-based activities in there. Others have more volume and shorter rest—it depends what your goals are. I firmly believe in mixing it up.

What is your weekly training split?

I do one muscle group every day. I do legs on Saturday and chest on Sunday because I can't do those two muscle groups in a lunch hour. The likes of biceps, triceps, back and shoulders I can do in about half an hour. I do cardio or abs on a rest day or whenever I can.

How do you find training in such short intense bursts?

It works for me. I don't think it would be the best course of action for beginners, but for me, where I am at with my life, I just have to squeeze it all in. I am forced to train like I do because I don't have time—I used to train in the evenings and do exactly what the guides say but I am working and working.

How do you hit it during the lunch break?

I usually just do weights during lunchtimes. I don't do cardio because I don't want to come back a sweating mess. I go in, hit the weights hard and then come back.

What kind of rest do you get between sets?

If I am doing six, 12, 25 reps, I have between 60 and 90 seconds' rest between sets. Then sometimes I will do eight reps of eight and have 30 seconds' rest between each set. Or I will do German Volume Training, which is 60 seconds between 10 sets of 10 reps. It is a lot of volume all the time but I pile it in, basically.

TOM'S DAILY ROUTINE

5.30am: **Wake up and do 30 mins cardio**

6am: **Breakfast plus emails and social media**

8.30am: **Start work at Canary Wharf**

11am: **Meal at desk**

Noon: **Hit the gym**

1pm: **Back at desk with shake**

3pm: **Meal at desk**

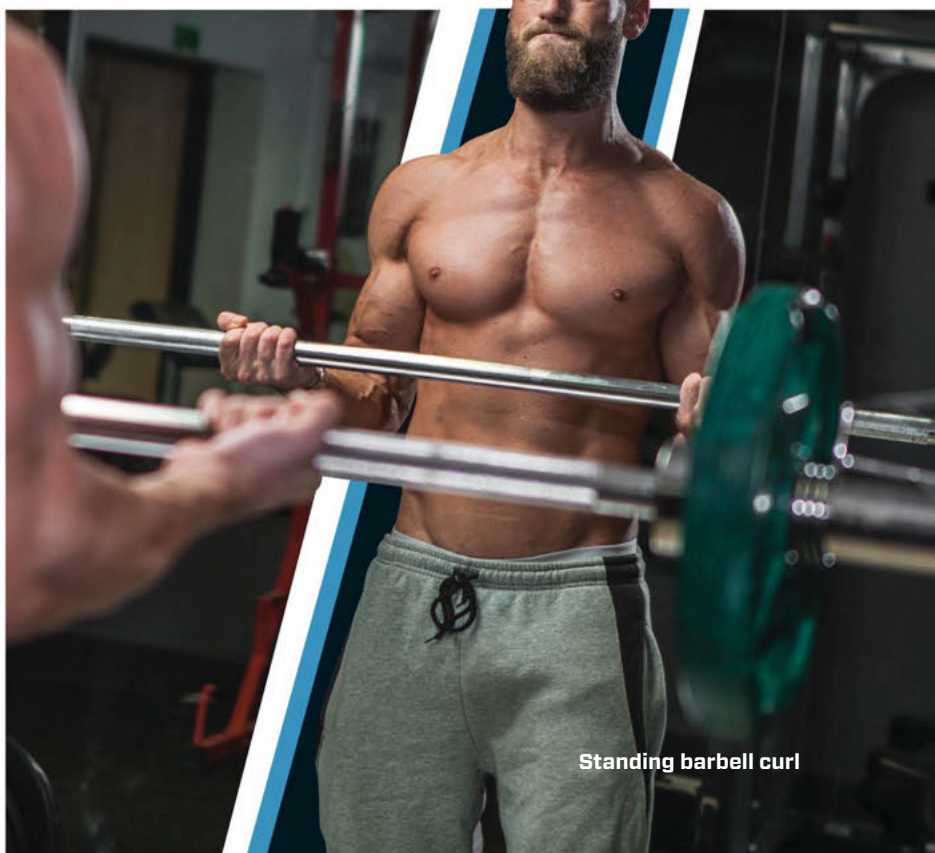
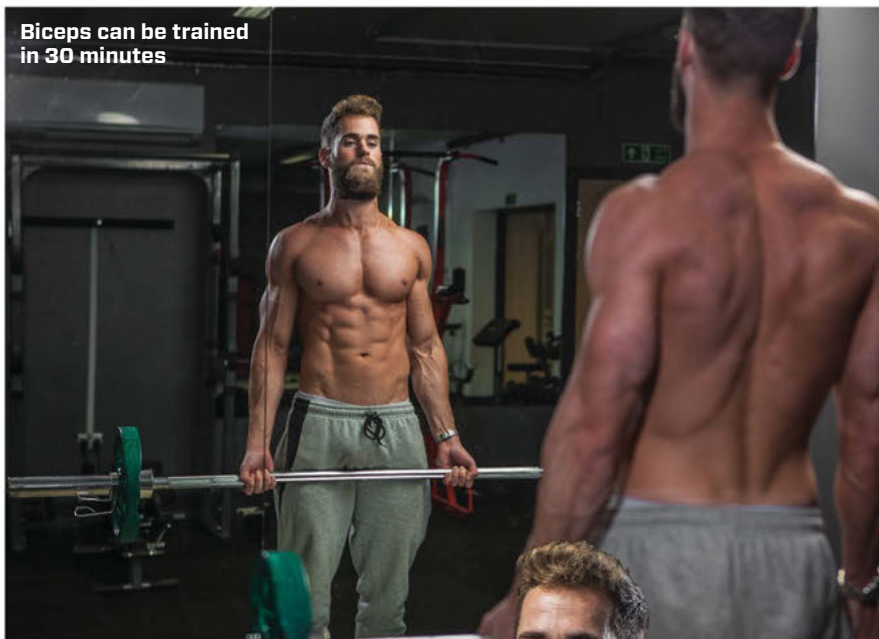
5.30pm: **Finish work**

6pm: **Commute home**

7pm-1am: **Emails, social media, writing**

1am: **Bed**

Biceps can be trained in 30 minutes



Standing barbell curl



I want more power

JAMES ELLIS

- FITNESS COVER MODEL
- WBFF WORLD CHAMPION
- TEAM SCITEC USA

#iwantmore

Scitec Nutrition's **Big Bang 3.0** is a powerful, complex pre-workout product that delivers 54 active ingredients without large amounts of carbohydrates! Big Bang 3.0 has been meticulously designed to support your body during physical activity, especially during high-intensity training. Big Bang 3.0 boasts an incredible 54 active ingredients, and our best-ever 6230 mg 5-component multi-creatine matrix!

16 amino acids, 3g of carbs, and only 16 calories per serving!

Aspartame free



SCITEC NUTRITION®

For retail enquiries please contact us on: 0127 987 4631



ScitecUK




@TeamScitec



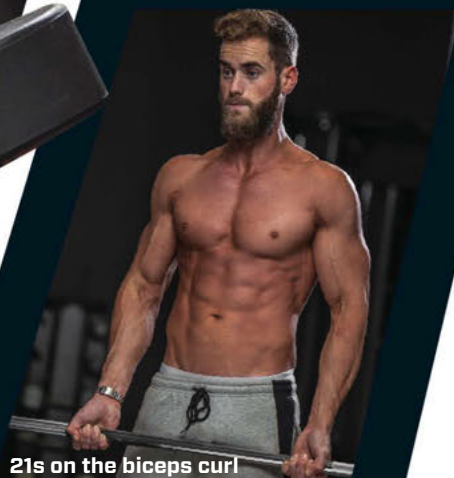
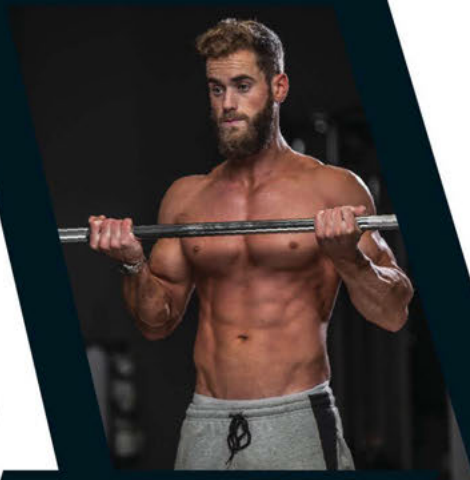
@scitec_uk



scitecnutrition.com



“ I WOULD
SAY CHANCES
ARE YOU ARE
NOT TOO
BUSY. THERE
ARE THINGS
YOU CAN BE
DOING ”



Can you really get in shape in 30-minute sessions?

Yes. You are pushing it but yes, you can. I usually get some cardio in every other day as well.

And still hold down a demanding job?

Absolutely. If I didn't have LDN Muscle then I would have more than enough time,

albeit I don't have kids. That is a consideration that a lot of people do have but we have seen thousands of people, some with busier lives than me, getting amazing results so it can be done. I am at the stage now where I won't really make huge strides with my physique whatever I do. Nothing drastic will happen to my physique. I could get fat—but I won't get

that much bigger or that much leaner naturally. For me it is almost a case of staying healthy and staying active and keeping my shape.

Tell us about LDN Muscle.

We just wanted to put something open and honest out there. It is very much based on the nutrition side of things so

LUNCH BREAK BICEPS BLAST

SHORT OF TIME?

TRY TOM'S

30-MINUTE WORKOUT

A1 Standing Barbell Curl:

6 reps (heavy)—40X0
tempo*, rest 10 seconds

A2 Standing Plate Curl:

12 reps (medium)—30X0
tempo, rest 10 seconds

A3 Standing Dumbbell Curl with Twist:

25 reps (light)—20X0
tempo, rest 120 seconds.

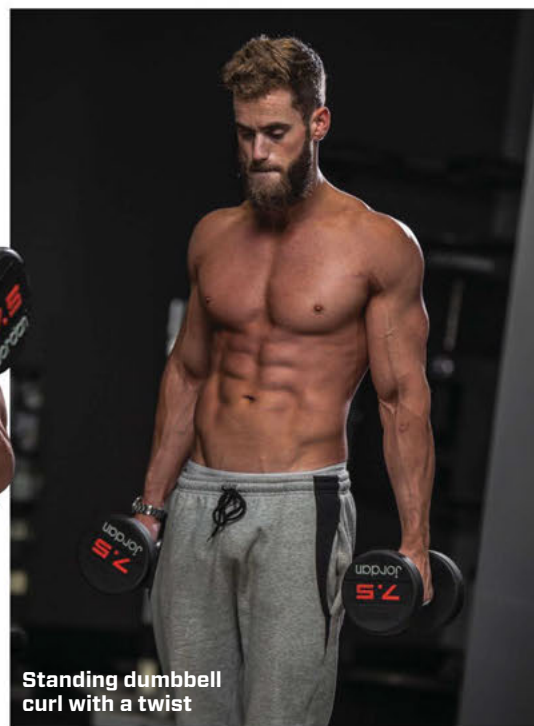
Repeat 3-5 times

B Standing Barbell Curls:

3 x 21s**, rest 45-60 seconds

*40X0 tempo = 4 seconds down;
0 seconds rest at the bottom of the
movement; X explode up; 0 seconds
rest at the top of the movement

**21s: perform first seven reps from the
bottom to the halfway point of rep
and second seven reps from halfway
to the top of the rep; the last seven
reps are full range of motion



**Standing dumbbell
curl with a twist**



Standing plate curl



what carbs do for you; what protein does for you; what time of day to have it; how much and how it all relates to different goals. It is educational. We want people to engage with our ethos, which is to design programmes for people with full-time jobs who train naturally.

How do you sort your diet?

I prepare my food as much as I can but I end up winging it a lot because I don't have a spare hour to cook and prep meals. So I buy pre-cooked food from the supermarket: pre-cooked meat, microwave rice, that sort of thing. My diet is very basic and boring... rice, chicken, vegetables and fish. That's about it. It is a lot more time-consuming to buy food every day but it works best for me. Then again it is not something we really advocate: the other three buy their food in bulk, prep it in advance and are very organised and that's what we teach.

Any tips for people who think they are too busy?

I would say chances are you are not too busy. There *are* things you *can* be doing. You might not be able to do a two-hour workout. You might not be able to prep all your food for the week but there are things you can be doing and you can achieve really good results if you dedicate half an hour or an hour a day wherever you can. It doesn't matter if you're not doing it in the evening, in the morning—do what you can and don't beat yourself up over it. **M&F**

BEPowerFUL®

BULK MUSCLE™

Bulk Muscle™ is loaded with the finest protein available on the market. This product combines complex carbs, amino acids, protein, and nutrients in a great-tasting formula to help you get stronger, thicker, bigger, not fat.

Bulk Muscle™ is exactly what you are looking for – a Lean, **HARDCORE**, Muscle Building Gainer.

MUSCLE FUEL FOR UNBELIEVABLE RESULTS



COOKIES AND CREAM



WHIPPED VANILLA



CHOCOLATE PEANUT BUTTER



A side-profile photograph of a very muscular man in a gym. He is shirtless, showing his well-defined back, shoulder, and arm muscles. He is holding a cable machine handle with both hands, pulling it towards his chest. He is wearing black athletic shorts with a grey stripe on the side. The background is a blurred gym setting.

STRAIGHT UP

BACK

Time to ditch the gimmicks. Simplify your back training programme to get growing again.

**BY
ERIC VELAZQUEZ**

A side-rear view of a very muscular man with dark hair, shirtless, performing a straight-arm lat pulldown. He is holding a rope handle with both hands, and the cable is taut, extending upwards and to the left. His back muscles, particularly the lats, are highly defined and glistening with sweat. He is wearing black athletic shorts with grey side panels. The background is a blurred gym setting with concrete floors and walls.

STRAIGHT- ARM LAT PULLDOWN

Keep your elbows straight and initiate the move from your shoulders. After multijoint moves (the T-bar row and lat pulldown), the straight-arm pull-down provides great isolation for the upper lats to help burn them out.

BACK TRAINING

IS like the tax code of physique building.

The methodology is as diverse as it is mystifying, and as complex as it is confounding, but in the end your goal is simple: you just want to get as much back as possible (pun intended). You experiment with new workouts and flirt with multiple angles, all with the hope of adding a little swole to your rearview. If this sounds like you, breathe deep and let this simple strategy wash over you: pull heavy stuff. Rest. Repeat.

Unless you're considering donning a set of posing trunks and getting onstage, the diversity of your angle work is a bit inconsequential. As with other muscle groups, using progressively heavier weight is the most direct route to new strength and size. While pulling through multiple angles will help you target different parts of your back, the benefits are not so specific as to warrant the additional fuss. With a few vertical and horizontal pulls in your plan, you'll add ample depth and width to your back.

T-BAR ROW

T-bar rows allow you to closely mimic barbell rows while still creating a hefty hypertrophy stimulus with a smooth, slightly arced pull. Unsupported T-bar rows are ideal, but you can always go chest to pad as an alternative if the safety of your lower back is an issue. Adding a drop set to failure on the last set of these helps you to flush the muscles with a final surge of nutrient-rich blood.



LAT PULLDOWN

Work these with a superwide, overhand grip that shifts the emphasis to your upper lats while reducing the contribution from your biceps. In all pulling moves, think of a crane: the lats are the motor, and your arms are just cables.

PAVEL YTHJALL

**BACK
EXTENSION**

The back extension may be the last exercise of your workout, but it's far from a throwaway. At this point in your workout, your upper back has been your focus, but your erector spinae have also been worked isometrically with the T-bar rows. You can hold a light plate behind your head or across your chest to finish these postural muscles with authority. **M&F**

**THE WORKOUT
BACK**

EXERCISE	SETS	REPS
T-bar Row	5	12*
Lat Pulldown	5	12
Straight-arm Lat Pulldown	5	12
Back Extension	3	12**

*Go as heavy as you can for 12 reps on each set. On each rep, maintain a flat back, pull aggressively through the positive before taking 2-3 seconds to lower the weight on the negative. Rest 1-2 minutes between sets. After reaching failure on the last set, drop the weight 20-30% and immediately continue performing reps to failure.

** After reaching failure on the last set, drop the weight and immediately continue performing reps to failure using only your body weight.

Body-Solid®

BUILT FOR YOU...BUILT FOR LIFE

From space saving gyms that fit in any room to home fitness centers with state-of-the-art designs that can handle multiple users, Body-Solid home fitness machines are designed to dramatically improve your quality of life and perform smoothly for years to come.

SCAN TO SEE
OUR FULL RANGE



GLUTE HAM MACHINE

Was £699 **NOW £599**



FLAT DECLINE/INCLINE

Was £269 **NOW £199**



LEG PRESS HACK SQUAT

Was £1199 **NOW £899**



MULTI PRESS RACK

Was £499 **NOW £399**



FUNCTIONAL TRAINER

Was £1699 **NOW £1299**



SERIES 7 SMITH PACKAGE

Was £2659 **NOW £1999**

Fitness Nutrition now available in our 11 Nationwide Showrooms

Northampton
Gloucester
Surrey
Livingston
Kent

13 Gate Lodge Close, Round Spinney, Northampton, NN3 8RJ
2 Fuller Ct, Westgate St, Gloucester, GL1 2UN
30-32 High Street, Frimley, Surrey, GU16 7JD
Units 91, 92 & 54b, Livingston Designer Outlet, Almondvale Avenue, Livingston EH54 6Q
30-34 Grosvenor Rd, Tunbridge Wells, Kent, TN1 2AP

Chester
Manchester
Newcastle
Leeds
Birmingham

157-167 Foregate St, Chester, CH1 1HF
Chill Factory, Unit 14/15 Trafford Way, Trafford Quays Leisure Village, Manchester M41 7JA
Royal Quays Outlet, Coble Dene, North Shields, NE29 6DW
Junction 32 Retail Outlet, Tomahawk Trail, Glasshoughton, WF10 4FR
House Of Fraser (4th floor), Corporation St, Birmingham, West Midlands, B2 4LS

Call **0800 634 0100** or visit
www.fitness-superstore.co.uk

Find us on



SUPPS

THE LATEST IN SUPPLEMENT AND PRODUCT NEWS

UNDER THE MICROSCOPE

Taking a purely scientific look at the best products in the world of sports supplements

BY TIM N. ZIEGENFUSS, PhD, CSCS, FISSN

WE EXAMINE THE CRITICAL ACTIVE INGREDIENTS IN VARIOUS SPORTS SUPPLEMENTS. We award high marks to those with existing supportive data, real-world results and innovation in formulation.

Here we put **MYOMAX HARDCORE** under the microscope.

MYOMAX HARDCORE is a protein/carbohydrate product that contains four different stacks of ingredients: a creatine blend (creatine monohydrate, creatine citrate, creatine pyruvate, creatine phosphate), beta alanine, branched-chain amino acids (BCAAs),

HMB (hydroxy beta methylbutyrate), and L-carnitine, along with a variety of other active ingredients. With this payload of active ingredients, MyoMax Hardcore is designed to support muscle growth and enhance high-intensity performance. If you are looking to get bigger and stronger, this product is worth trying.

CREATINE is the world's best-selling, safest, and most effective anabolic supplement. Hundreds of studies have been done in humans that demonstrate its efficacy for building muscle and improving performance. Among its main mechanisms of action, creatine increases the rate of ATP regeneration (which reduces fatigue during intense, repeated exercise bouts), promotes greater secretion of intramuscular IGF-1 concentrations (an intramuscular growth factor), increases muscle fibre protein content, and increases several myogenic regulatory factors (i.e. proteins that activate gene expression in muscle). In stark contrast to unsubstantiated reports by athletic trainers and some coaches, no published study has ever linked

creatine use to muscle strains, dehydration or kidney/liver problems. Used appropriately, creatine is one of the safest supplements on the market.

GRADE: ★★★★★

REASON: *If you've tried creatine already, chances are you know it works. If not, get on the programme... 3-5 grams per day most days of the week. For best results, take it immediately after a hard training session with a low fat, high carbohydrate/protein meal.*

BETA ALANINE is a widely popular amino acid that reduces muscle fatigue during intense exercise. When beta alanine is ingested, it combines with another amino acid called histidine to form a compound called carnosine. In exercising muscle, carnosine acts as a potent buffer of hydrogen ions that are generated from lactic acid (lactate) production. This is relevant to bodybuilders during sets that last longer than about 60 seconds or when training with short rest periods where lactate accumulation can reduce the total number of repetitions completed. In theory, beta alanine may also be useful during very low carb diets to offset changes in pH due to ketone production. For best results, beta alanine must be consumed continuously for at least four weeks.

GRADE: ★★★★★

REASON: *Beta alanine helps reduce fatigue during intense bodybuilding exercise, thus allowing for a greater training stimulus. All other things being*



equal, a greater training stimulus = greater gains over time.

BCAAs are used by many athletes between meals in the hopes of sparing muscle protein breakdown, restoring anabolic signalling, and (potentially) upregulating fat loss. The BCAAs are unique among amino acids because they are the only ones thought to bypass the liver and be metabolised directly in skeletal muscle. Even though all three BCAAs utilise the same mechanism to enter muscle, most experts advise against taking high doses of just one amino acid, and I generally agree with this assertion because when only one BCAA is available to the body, the other two can become “rate limiting”. In other words, leucine works best to stimulate muscle protein synthesis when isoleucine and valine are also around at normal “permissive” levels. Typically, BCAAs are used several times per day, particularly during dieting phases or when muscles are especially sore from training.

Experimentally, BCAAs have also been shown to help speed muscle recovery from intense training. Although the mechanisms are not completely clear, it appears that BCAAs act as signalling nutrients and are able to promote the phosphorylation of proteins directly involved in muscle protein synthesis (mTOR, eukaryotic initiation factors, etc). A recent study showed that low doses of whey protein (i.e. 6.25 grams) can be as anabolic as higher doses (i.e. 20 grams) if extra leucine is added into the whey mixture. I'd speculate that even greater increases would be observed if a blend of BCAAs were utilised rather than straight leucine. In addition, some scientists have speculated that long-term use of BCAAs may also aid in fat loss efforts, as isoleucine has been shown to increase the activity of genes controlling fat burning and decrease the activity of genes controlling fat storage. Some data also exists that shows leucine itself can increase fatty acid oxidation and increase mitochondrial biogenesis (translation: more mitochondria) in both muscle and fat cells.

Lastly, many endurance athletes also use BCAAs to combat fatigue and enhance their aerobic performance. During prolonged aerobic exercise, BCAAs are thought to reduce the uptake of L-tryptophan (an amino acid that is converted to serotonin) into the brain. The end result is a reduction in what is known as “central fatigue” and enhanced performance. In addition, at least one study has reported increases in red blood cell count, haemoglobin, and haematocrit in subjects given only 2.2 grams of BCAAs during middle and long-distance endurance training. This seems to suggest an “EPO-like” effect of BCAAs that would improve performance. That said, endurance athletes wishing to try BCAAs should do so in combination with their normal intake of carbohydrates.

GRADE: ★★★★★

REASON: *BCAAs are versatile compounds that can enhance the effects of most intense training programmes. If you don't eat four to five moderate sized meals a day, adding BCAAs to your diet can probably help you. To build more lean mass/strength and help trashed muscles recover more quickly, take extra BCAAs with your pre- and post-workout meals/shakes, especially if they contain less than 20 grams of total protein. Otherwise, use BCAAs between meals and at breakfast, especially if you are a small eater.*

HMB is a potent anti-catabolic metabolite of the amino acid leucine that is thought to play a central role in regulating muscle mass by inhibiting protein breakdown. HMB is available in two forms: calcium-HMB and HMB-free acid. While the latter form appears to be much more powerful, there are a few published studies that demonstrate the benefits of calcium-HMB supplementation on lean mass and the acquisition of strength. Scientists believe that HMB helps stabilise cell membranes and, based on recent evidence in rats, may increase the short-term energy capacity of muscle fibres by increasing ATP and glycogen content. In order to reap these potential benefits, doses of HMB (the calcium salt form) need to be about 2-3 grams per day for

approximately 8 weeks. Also, HMB works best when it is taken during intense periods of training. Wimps and those who skip workouts should not expect any noticeable changes in body composition or strength levels.

GRADE: ★★★★★

REASON: *When taken at appropriate doses, during periods of intense resistance training, HMB can magnify changes in lean mass and muscle growth. This is particularly true in previously untrained subjects and/or those who are losing muscle due to the normal ageing process (where catabolic processes are accelerated).*

L-CARNITINE is a naturally occurring amino acid found in meat and dairy products. Most carnitine is found in muscle, where it helps transport long-chain fatty acids into the mitochondria where they can be burned for energy. Despite this strong theoretical benefit, most studies that have given subjects oral carnitine supplements have not reported increases in physical performance or fat loss. However, a few recent studies have shown that 1000-2000 mg of carnitine per day can improve recovery from intense weight training exercise. In these studies, androgen receptor content was also upregulated in subjects who ingested a specific form called L-carnitine L-tartrate. Other forms of L-carnitine include acetyl-L-carnitine (which appears to cross the blood-brain barrier and may have neurological benefits), propionyl-L-carnitine (which has beneficial effects on heart function), and glycine propionyl-L-carnitine (which has beneficial effects on blood flow).

GRADE: ★★★★★

REASON: *Although it's not a potent fat burner, at the right dose L-carnitine has a plethora of benefits, including enhancement of muscle recovery as well as mitochondrial and cognitive support. MBF*

THE RATINGS

★★★★★ Outstanding scientific research on humans available

★★★★★ Solid research available; anecdotally effective

★★★ Not much human research available but premise is sound

HIGH PROTEIN SWEETS

AS WE ARE SURE YOU ARE

already more than aware, living a healthy lifestyle and keeping your nutrition on point can be pretty tough and at times a little dull.

But thanks to **MuscleFood.com** things are about to change. Now you can satisfy your sweet tooth whilst boosting your protein intake thanks to their new high protein sweets.

Online nutritional **Muscle Food** have launched the very first high protein chew sweet and they are very different to many protein bars which promise an indulgent treat but are actually flavourless paste.

Unlike many protein bars and health confectionary which are

made with poor quality proteins and nasty fillers, these new high protein chews are made using a combination of premium whey protein isolate and concentrate.

That gives them fantastic nutritional:

- 150 g protein per pack
- 15 calories and 2 g carbs per chew
- sugar-free, fat-free, gluten-free
- 10 chews per pack

We think that is pretty impressive for something that tastes as good as Chewits.

These are great for replacing your protein shake or meal post-workout. You don't have to carry around shakers, or any Tupperware or cutlery.

Just get stuck into a pack without any mess or fuss.

MuscleFood.com are selling these high protein sweets in Fruity Tropical, Orange Cream and Creamy Chocolate Caramel flavours.

Buy one pack for £2.49 or get all three flavours for just £5.99. Visit **www.MuscleFood.com**.



PROSUPPS MR HYDE

MR HYDE is formulated for athletes looking to get an extreme energy boost during their workouts.

This pre-workout formula provides not only energy and focus, but also contains key ingredients proven to ignite muscle pumps and blood flow during workouts.

Anchored by a blend of caffeine anhydrous, Infinergy (dicafeine malate) and caffeine citrate, **Mr Hyde** provides consistent energy throughout your workout and, says the company, prevents the crash effect you may experience with other pre-workouts.

To optimise strength and muscle gains, the **ProSupps** formula also includes creatine nitrate, CarnoSyn beta alanine and L-leucine.

Creatine nitrate, paired with beta alanine, allows the body to perform at optimal levels during high-intensity exercise to help produce more strength and muscle gains.

L-leucine plays a crucial role during workouts, and even post-workout, by stimulating protein synthesis leading to greater hypertrophy.

Agmapure agmatine and L-citrulline provide the body with increased blood flow to help transport nutrients to the muscles quicker during workouts and create those skin-tearing pumps you strive for.

L-citrulline assists in delaying muscle fatigue and allows your body to perform longer and harder during strenuous activity. It also allows

your muscles to recover quicker after workouts.

ProSupps says **Mr Hyde** covers all the bases needed for an all-inclusive pre-workout choice by not only providing an enhanced energy experience but by also providing proven ingredients to help increase strength, power, size, pumps and recovery.



TIME TO BOSS IT

SCI-MX NUTRITION is running a 12-week video competition that challenges you to show you mean business in the gym.

The **#BOSSIT & Prove It** challenge is simple—all you need to do is submit a video of you bossing your workout (it can be fun, serious or hardcore).

Ten winners will be chosen each week for 10 weeks and all winners will receive a **SCI-MX** stack of supplements plus entry to the next level.

The second level will put the 100 winners to the public vote and the top 10 most voted for videos will receive a £300 **SCI-MX** voucher

plus entry to the final level.

The top 10 videos will be judged by a panel of experts and the top 3 winners will become official amBOSSadors, each winning £1,000 cash plus VIP access to BodyPower in May as a fully fledged member of Team **SCI-MX**.

You can enter by visiting the **SCI-MX** Facebook page or website and submitting a link to your YouTube video.

If you want a simpler way to enter, just upload your video directly to your Instagram or Twitter account using **#BOSSIT** in the caption—all videos will be



automatically entered depending on your privacy settings.

BCAA SENSATION

Never be satisfied **DEDICATED NUTRITION** tell us they live by these words.

Now the company is introducing their first product featuring the new Dedicated Nutrition design.

BCAA Sensation has been radically transformed to become a recovery and intraworkout powerhouse that yields instant results.

The new formula includes 5 g of leucine per scoop and a massive total of 7.5 g of pure BCAAs per scoop.

Dedicated Nutrition has also added some new ingredients to the formula: the exact same unique Epo-Drol Rhodiola extract as featured in Unstoppable is added to the formula, to give an instant performance boost.

Epo-Drol contains extremely high levels of salidroside, which profoundly increase red blood cells and oxygen uptake.

Dedicated Nutrition has also added its newly developed Super

Grape extract. Although the name sounds corny, its effects certainly are not: Super Grape is a unique grape seed extract yielding unprecedented levels of low molecular weight polyphenols and epicatechin.

Super Grape greatly increases blood flow to working muscles through relaxation of the blood vessels.

Increasing blood flow to the muscle you are training allows for increased delivery of nutrients, thus enhancing strength, speeding up recovery and giving you a long-lasting muscle pump.

Furthermore, **Dedicated Nutrition** has added a hefty dose of electrolytes to keep you going during your workouts and ensuring you stay hydrated.

Last but not least, the new **BCAA Sensation** also contains a clinical dose of Astragin, the patented nutrient absorption ingredient that allows all

ingredients to be assimilated as fast as humanly possible. **M&F**

Learn more at www.dedicatednutrition.com.



EUROPE'S ELITE BATTLE TO BE CROWNED...

EUROPE'S STRONGEST MAN

FEATURES THE WORLD DEADLIFT CHAMPIONSHIPS



11 JULY 2015
CARNEGIE STADIUM
HEADINGLEY, LEEDS

Tickets from £15 - £40, doors open 10am,
show starts at 12 noon

Buy tickets from europestrongestman.com,
or call 0871 423 1315



OFFICIAL
"WORLD'S STRONGEST MAN"
QUALIFYING TOUR

MUSCLE
& FITNESS

FLEX

EXPERT

ADVICE ON TRAINING, NUTRITION AND SUPPLEMENTATION FROM TOP ATHLETES AND FITNESS PROFESSIONALS

THIS MONTH'S HIGHLIGHTS INCLUDE

Hot shot **Christopher Bailey** on how he became the UK's most shredded fitness photographer

Legendary strongman **Terry Hollands** on his switch to powerlifting

Cap off your shoulders with the double kettlebell military press

Is keto the key to weight loss? **James Collins** investigates

Bikini pro **Michelle Brannan** explains how to sculpt a perfect pair of pins



GILLES CROFTA

RAW POWER MOVE

Britain's top strongman **TERRY HOLLANDS** on switching to powerlifting

By Ben Kenyon

Photography by Matt Marsh

THE GARGANTUAN FIGURE

OF TERRY HOLLANDS has dominated the British strongman scene for nearly a decade.

Hollands, 35, is the only Brit to have placed in the top three at World's Strongest Man for more than 20 years—a feat he has achieved twice.

But his hulking 170 kg frame is now casting a shadow over the powerlifting world as he prepares for an all-out assault on a new strength sport.

The Kent native has his sights set on a 900 kg total for squat, deadlift and bench as well as winning this year's British championships—and maybe even the worlds.

MUSCLE&FITNESS: What made you Britain's most successful strongman for 20 years?

TERRY HOLLANDS: The thing that perhaps enabled me to do better than other guys is that I concentrated on athleticism rather than just static movements. I spent a lot of time working on speed events—it's the attention to detail when it comes to the moving events that sets me apart.

Which key attributes helped you stay at the top?

It was not a case of being amazing at one or two things—I was good across the board. I didn't have any real weaknesses apart from my overhead press.

Were you happy finishing fifth at the 2014 World's Strongest Man?

For me it was quite a battle because I got a severe back injury in 2013 at the World's Strongest Man. I spent all of

October, November and December rehabbing my back and not really training. Then in January we got the call saying the event had been moved to earlier in the year so I only had eight weeks to get ready. I was training about 10 times a week—two events sessions and four gym and four conditioning sessions. It was full on. Going from where I was to fifth at World's Strongest Man, I was pretty happy with that in eight weeks.

Why switch to powerlifting?

I didn't really train properly for eight months after World's Strongest Man. I always wanted to do powerlifting and when my gym opened it seemed like an ideal time. I'll spend this year doing that and hopefully win the British Championships in October. The powerlifting movements are a good foundation for strongman so it gives me an opportunity as well to work hard at that and then towards the end of the year maybe go back to strongman and hopefully qualify for the World's Strongest Man in 2016.

What do you think powerlifting will benefit most?

My deadlift has always been strong but my squat has always been a bit of a weakness—well, not one of my strong events. It will give me a chance to bring it up a bit. I obviously squat every week but I wouldn't concentrate on it. I think I have done 250 strongman competitions and I have only squatted five times in competition.

Any targets?

The federation I will be lifting in is the

GBPF (Great British Powerlifting Federation) and they are really strict on rules. The plan is to do that. I think last year the biggest total was 900 kg at my weight class so I'm hoping to beat that. I would like to try and qualify for the world championships too if I can.

What are your numbers like?

My bench and my deadlift have always been pretty strong—it is my squat that has always been the weakest of the three lifts. If I can bring that up a bit and bring my deadlift and bench back to where it was, then over 900 kg shouldn't be a problem at all.

At the moment, coming off nine months of not training I am probably sitting around a 350 kg deadlift, 280 kg squat and 210 kg bench. Hopefully, towards the end of the year it will be more like a 350 kg squat, 400 kg deadlift and 240 kg bench.

Describe your powerlifting training routine.

I am not in full training at the moment so I am trying to ease myself back in. I am squatting, bench pressing and deadlifting once for each exercise a week. I'm also doing all the assistance work that goes with those exercises and on top of that I add in other bits and bobs like stretching and mobility work.

How does powerlifting training differ from your strongman training?

With strongman there's more emphasis on overhead pressing rather than bench pressing. Now the bench press becomes a priority. Obviously, I don't have to do any of the running around and strongman events any more. Overall, the foundations are pretty similar but I can put more effort into those three lifts than I have in the past.

"I may go back to strongman in 2016."



SNAPSHOT

Name: **Terry Hollands**

Age: **35**

Birthplace: **Dartford, Kent**

Lives: **Dartford, Kent**

Height: **6 ft 6 ins / 198 cms**

Weight: **375 lbs / 170 kg**

Career Highlights: **Finishing
3rd at the World's
Strongest Man in
2007 and 2011**

Ambition: **To win the
British Powerlifting
Championships and
maybe challenge for
the world title at
the IPF Classic**

Training Advice: **Don't
overthink training. Stick
to the basics and give
them a chance.**

Contact: **Twitter
@terryhollands Facebook
Terry Hollands**

ADJUSTABLE FOCUS

Physique photographer **CHRISTOPHER BAILEY** wanted to see if he could look as good as the guys he shoots

By Ben Kenyon

Photography by Gilles Crofta

CHRISTOPHER BAILEY HAS ALWAYS BEEN IN SHAPE. For years he had to be—he was a professional ice hockey player who represented Great Britain.

Back then he hit the weights as often as he hit the ice but when he hung up his skates to become a photographer and started shooting for *Muscle&Fitness* and FLEX, his training took on a different purpose.

Photographing the likes of cover models Ryan Terry and Steve Cook, and meeting transformation experts like Phil Learney and Mark Coles, he began to adopt a more aesthetic approach to his workouts.

Eventually, he set himself the challenge of getting in as good a shape as the men he photographed.

Using the knowledge he'd acquired, he embarked on an eight-week programme to get in his best condition ever and then sample life on the other side of the lens by being shot by fellow physique photographer Gilles Crofta.

MUSCLE&FITNESS: How did you become a pro ice hockey player?

CHRISTOPHER BAILEY: I was about eight or nine when I got my first team and played through the ranks. I finished my GCSEs and went to hockey camp in Montreal and got scouted by colleges. At 17, I came back to play for Great Britain in the world championships and was scouted by Basingstoke Bison, which was a Premier League team at the time. I then played for various teams, including Hull Thunder, Wightlink Raiders (Isle of Wight) and Cardiff Devils—where we won quite a few cups. I played ice hockey until 2004.

What was the training like?

A lot of teams didn't have the budget for proper training programmes but the

better teams like Cardiff and Sheffield Steelers had strict rules about going to the gym. You're on the ice every day so it was hard to keep the weight on throughout the season because you're doing that much cardio. I would spend the off-season trying to put size on. Back in those days there wasn't enough education in the sport. It was kind of strength training but we didn't have a set regime.

What happened to your training once you retired?

That's when it really changed. I had been on the ice every day and suddenly I wasn't being told what to do so I took on more of an aesthetic training programme. My physique changed to more of a beach body than a functional one. I followed a three-day split: chest and biceps, back and triceps and legs and shoulders, using free weights. A lot of my training I got from reading articles in *Muscle&Fitness*.

When did your physique really start changing?

In 2009, I did my first shoot with Phil Learney. From that point we became friends and he has helped me a lot with training and diet. Since then I have been shooting more in the fitness industry and getting to know more people in it, which has helped my learning.

Which of the people you have photographed in the fitness industry have had the biggest impact on you?

Phil has been a big part of my training and diet. I have learned a lot from him. I really enjoyed shooting with Ross Edgley and have incorporated his resistance band training quite a lot.

I am friends with Anth Bailes. He sort

of brings it down a bit more. He is very simple with his training and diet. It is generally two warm-up sets and one heavy set with him on everything you do.

How did you get in fitness-model shape?

Mark Coles offered to prep me for eight weeks and at the time I really needed a goal to focus on.

The training was concentrating on my lower back because that's a weak point of mine. We did two back sessions a week, one leg session, chest and shoulders and then just did arms sparingly whenever.

I've always had quite strong abs and generally always have a six-pack because I fractured my spine playing hockey which meant a lot of core work to strengthen my abs.

When I started the plan I was at 10.8% body fat. The aim was to get down to about 6%.

Mark wanted to bulk my shoulders out a bit and fix my posture to keep my shoulders back and my abs tight.

The training was definitely harder than I had done in the past.

How was the dieting?

I've always eaten clean but I have never dieted before. There's a massive difference in that.

I spend a lot of time on the road so that is the hardest thing. But I have got my camper van with a mobile kitchen and my gas barbecue.

The diet was not much different to what I was eating before—steak and nuts for breakfast, a lot of chicken and some salmon. I really increased my calories when I first started: five solid meals and a shake before bed. I did a lot of intraworkout carbs—the diet was planned to spike insulin around training. I noticed a big difference.

***"I've always
eaten clean
but I have
never dieted
before.
There's a
massive
difference."***

SNAPSHOT

Name: **Christopher Bailey**

Age: **34**

Birthplace: **Beverley,
East Yorkshire**

Lives: **Cottingham,
East Yorkshire**

Height: **6 ft 4 ins /
193 cms**

Weight: **229 lbs / 104 kg**

Career Highlight: **Shooting
the 50th Olympia last
year in Las Vegas**

Ambition: **I already love
what I do so just plan to
keep pushing forward and
see where it takes me.**

Training Advice: **Leave
your ego at the door.
Find someone you respect
and listen to what they
have to say!**

Contact: **Facebook.com/
baileyimage,
Twitter @baileyimage,
Instagram @baileyimage**



LASHING OUT

He's conquered professional wrestling; now **BOBBY LASHLEY** is seeking MMA stardom

By Scott "Future" Felstead
Photography by Lee South

BOBBY LASHLEY IS ONE OF THE DOMINANT FORCES IN PROFESSIONAL WRESTLING, having won the TNA world championship title.

But the 245-lb Lashley is also forging a reputation in mixed martial arts with two wins from two fights in the Bellator promotion.

Lashley is no stranger to MMA, but it's almost beyond comprehension that a pro wrestler can absorb the nightly punishment of his trade, shake it off, and jump into the octagon for such aggressive combat.

We caught up with "The Dominator" to discover just how he does it.

MUSCLE&FITNESS: How did you get into pro wrestling?

BOBBY LASHLEY: In 2003 I was training to wrestle in the Olympics. I walked into the bank to make a deposit and the next thing I knew the doors flew open. Three men came in, there was a loud bang and I instinctively moved towards the floor. If you look at the CCTV footage and the line of fire, that bullet was headed straight for me.

As I went down, I injured my knee badly. I was lucky to get out alive but I was in bad shape. I had to have my leg in a cast for weeks and I couldn't walk for months. Surgery forced me out of the Olympics.

Before all this I'd talked to Kurt Angle and he'd put a word in for me at WWE. When they called and asked me to try out I still couldn't walk from the incident at the bank. The first day I walked was literally to get on the plane and go to the WWE's training facility. I had to work through extreme

pain. I got through a lot of ice but they saw potential and signed me.

Being a professional wrestler, were you concerned people might doubt your credibility as a fighter?

Not really. I mean people can be ignorant of what it takes to be a pro wrestler but the guys at TNA are high-level athletes, not slobs. They are tested day in and day out. Success in MMA just proves that. For me, it's all about competition. That's what drives everything I do.

How important is weight training?

Weight training is my life! With pro wrestling you want to look a certain way and project the right image. You want to be in "TV shape". It's all part of the package.

What do you enjoy most about training?

Well for me it's like going to church. When I'm training I don't feel like a normal person. I'm in the zone. I find it so therapeutic and there's really nothing I enjoy more than pushing myself beyond the limits.

Is there anything you don't enjoy?

I guess I don't like distractions. I want to focus 100% so if you have someone coming over in the gym and asking questions I can find that tough sometimes.

Do you do cardio?

I really get a lot of my cardio bursts through training with high intensity. My lifts, MMA sparring, and pro wrestling matches are all great for conditioning.

How many days per week do you train and how long does an average session last?

Generally I train 45 minutes to an hour, twice a day, four days a week.

Describe a typical session.

Drills: *Skipping or box jumps*

Barbell squat: *2 sets of 12 reps, followed by 3 sets of 8 reps*

Plank: *3 sets of 1 minute*

Walking lunge: *3 sets of 10 reps*

Hanging leg raise: *3 sets of 10 reps*

Burpee: *3 sets of 8 reps*

Sled push: *3 sets of 50-yard pushes*

Cool down and stretching: *10 minutes*

Your strikes are fast and powerful. How do you train for that?

It comes from explosive training where you don't just work one muscle but you understand that the rest of the body is required, too. So it's a case of functional weight training on lots of body parts.

Do you still have a gym in Denver, Colorado?

I do. We have personal training, weights and cardio machines. We get people ready for all types of contests like MMA and Muay Thai. I love it there so I go whenever I get the chance.

What supplements do you take?

At the moment I'm really in to getting as much as I can from whole food. I eat a lot of chicken, red meat, and fish. **M&F**

SNAPSHOT

Age: **38**

Birthplace: **Kansas, USA**

Lives: **Colorado, USA**

Height: **6 ft 2 ins / 188 cm**

Weight: **245 lbs / 111 kg**

Career highlight: **Winning the TNA World Championship in 2014**

MMA Record: **12-2-0**

Contact: **On Twitter @fightbobby**



***“There’s nothing I
enjoy more than
pushing myself
beyond the limits.”***

C THE DIFFERENCE

The impact of vitamin C deficiency on health and performance

By James Collins and Mark Hobden

Vitamin C's health benefits are well known. It plays a pivotal role in the formation of collagen (a protein essential for the maintenance of tissues and organs), supports the immune system and is involved in wound healing.

Vitamin C is also water-soluble—like vitamin B and folate—and is therefore rapidly excreted from the body. Consequently, it's important to ensure a good intake to avoid deficiencies. Very low intakes can result in scurvy, which affected sailors in the 15th century and soldiers during the First World War

when fruit and vegetables were scarce. In modern life, such deficiencies are very rare but sub-optimal intakes may be present in those who don't eat a diet rich in fruit and veg, with deficiencies most common in the elderly and those who habitually smoke and/or drink alcohol.

The majority of scientific research has focused on vitamin C's health benefits, but a new study has found low vitamin C intake may also compromise athletic performance.

MAIN FINDINGS

■ VO_2 max values (capacity for aerobic exercise) were compromised in individuals with low blood levels of vitamin C compared to those with high levels. Supplementation in those with low blood levels of vitamin C marginally increased VO_2 max.

■ Before vitamin C supplementation, individuals with low vitamin C levels had higher concentrations of oxidative stress biomarkers in their blood than those with high levels of vitamin C.

SIGNIFICANT METHODOLOGY

Researchers screened 100 men for the study. The 10 with the lowest vitamin C blood levels and the 10 with the highest were then recruited to take part in the full study. Volunteers completed an aerobic exercise test to exhaustion to determine VO_2 max before

and after taking a vitamin C supplement (three 333 mg tablets per day) or a placebo for 30 days. Blood samples were collected and analysed for markers of oxidative stress.

TAKE-HOME MESSAGE

This study provides the first evidence that sub-optimal intakes of vitamin C may compromise performance. Why this is the case remains to be confirmed but it appears to be due to a reduction in oxidative stress markers. More studies are now required to further investigate the effects of vitamin C supplementation on performance parameters in those who habitually consume a low intake of vitamin C.

A varied and balanced diet, including at least five portions of fruit and veg per day, will easily achieve the recommended dietary intake of 40 mg per day. Accordingly, vitamin C supplements are only really necessary if you do not eat enough fruit or veg. It is important to note that megadoses of vitamin C—achieved by exceeding suggested supplement dosages—will not further boost performance and may actually reduce muscle adaptation, and lead to stomach pain, diarrhoea and flatulence.

REFERENCE

Paschalis V, Theodorou AA, Kyparos A, Dipla K, Zafeiroidis A, Panayiotou G, Vrabas IS, Nikolaidis MG (2014) **Low vitamin C values are linked with decreased physical performance and increased oxidative stress: reversal by vitamin C supplementation.** *European Journal of Nutrition* [Epub ahead of print]





POWERLINE



STRENGTH TRAINING EQUIPMENT

SAVE
£150

Was £499
Now £349

Power Rack*



SAVE
£100

Was £399
Now £299

Vertical Leg Press



SAVE
£60

Was £209
Now £149

Folding Incline/Decline Bench



SAVE
£30

Was £99
Now £69

Dumbbell Rack*



SAVE
£50

Was £199
Now £149

Seated Calf Raise



SAVE
£30

Was £159
Now £129

Squat Rack*






*Fitness Nutrition now available in
our 11 Nationwide Showrooms*

Call today to receive a **FREE** catalogue

Call **0800 634 0100** or visit
www.fitness-superstore.co.uk



* Weights sold separately
Bodysports PLC - Sole UK distributor for Powerline Fitness Products

Find us on   

THE KEY TO WEIGHT LOSS

Is a ketogenic diet right for you?



Following the commercial success of the Atkins diet there has been a staggering rise in the popularity of other high-protein, low-carb weight loss diets. These are said to work due to a very low carbohydrate availability forcing the body to use ketone bodies—beta-hydroxybutyrate, acetoacetate and acetone, which are produced by the liver in a process called ketosis—for fuel.

A high intake of protein is also thought to reduce the catabolic (muscle wasting) effects of weight loss and help suppress the increases in hunger that often occur during energy restriction. However, this latter point is a subject of debate, with some nutritionists suggesting such reductions in hunger may be due to the monotony of frequent consumption of the same or similar foods rather than the protein content of the diet.

Researchers from the University of Sydney have recently delved into the available scientific literature and undertaken a large-scale review of studies investigating the effects of ketogenic-type diets on appetite regulation. Interestingly, their findings suggest ketogenic diets do have appetite-suppressive properties during weight loss.

MAIN FINDINGS

■ Energy restricted diets rich in protein and low in carbohydrate were found to have appetite-suppressing benefits.

■ The authors of the study suggest that ketosis appears to provide a plausible explanation for this suppression of appetite.

SIGNIFICANT METHODOLOGY

Researchers reviewed recent studies investigating the effects of high protein, low carbohydrate diets on subjective measures of appetite assessed using visual analogue scales. A total of 26 studies were analysed in the literature review.

The diets used in the studies ranged from 4–12 weeks in length.

TAKE-HOME MESSAGE

The literature review found that ketogenic diets may better control appetite during weight-loss dieting. Over the short term, ketogenic diets appear to enable non-athletic individuals to quickly lose weight while beneficially moderating hunger. However, over the longer term this form of diet may provide insufficient vitamins, minerals and fibre. Furthermore, long-term ketogenic diets have been associated with gall stone formation.

Ketogenic diets also have limitations for sportspeople, one of the main problems being that carbohydrate is an important fuel source for exercise, particularly in endurance events like long-distance running and cycling, as well as team sports like football and rugby. For anyone involved in these sports, a low intake of carbohydrate could negatively

impact on performance and recovery, and also result in a suppression of the immune system, subsequently increasing the risk of infection. As such, carbohydrate intake—and timing—needs to be carefully planned to adequately fuel training while meeting weight loss targets.

A ketogenic-type diet may be more suitable for gym-goers and strength athletes. However, carbohydrate intake is still important and should be controlled to meet the energy demands of the training programme. It should be lowered during a cutting phase to strip body fat, and increased during a bulking phase to build muscle. For these individuals, a diet rich in protein (1.6–2 g per kg of bodyweight per day) is important to provide an anabolic environment for muscle development. **M&F**

REFERENCE

Gibson AA, Seimon RV, Lee CM, Ayre J, Franklin J, Markovic TP, Caterson ID, Sainsbury A (2015) Do ketogenic diets really suppress appetite? A systematic review and meta-analysis. *Obesity Reviews* [Epub ahead of print]

5 ISSUES OF M&F FOR ONLY £5*

*This is a direct debit offer open to UK residents only. Payments will increase to £16.99 every 6 issues unless advised to stop.

This offer is not available to Digital Edition subscribers.



CALL or CLICK to subscribe

Call: 01858 435346 QUOTE CODE MU43

Open weekdays 8am-9.30pm, Saturday 8am-4pm

Click: www.subscription.co.uk/m&f/mu43

IN THE TIME IT TAKES YOU TO READ THIS

YOU CAN:



CHANGE THE DUMBBELL WEIGHT FROM 2kg-54kg AND THE KETTLEBELL WEIGHT FROM 10kg-36kg

OR YOU CAN

CHANGE ONE OF THE MANY SUPER BENCH ATTACHMENTS

THAT'S ALL IT TAKES

FOR MORE INFORMATION ON THE IRONMASTER RANGE OF INNOVATIVE PERSONAL STRENGTH TRAINING EQUIPMENT Visit: valleyfitness.co.uk

Valley FITNESS

Use code MF1 for a FREE gift with your 1st order



download the digital edition of
Muscle & Fitness

#1 for: training • nutrition
• supplementation

Find out more at
muscle-fitness.co.uk

(digital publications menu)



THE BEET GOES ON

New research sheds fresh light on the benefits of beetroot juice

By Dr Adrian Hodgson

HOW NITRATES WORK

Dietary nitrates, commonly found in green vegetables and beetroot, increase nitric oxide levels in blood vessels and skeletal muscle. This improves blood flow to the muscles and enhances energy production and recovery in the muscle through better mitochondrial function.

YOU'VE PROBABLY LOST

COUNT of the number of times you've been told studies show that consuming nitrate-rich foods, specifically beetroot juice, can enhance performance. But so far, studies of the performance enhancing benefits of beetroot juice have been limited to cycling, running and exercise lasting between 30–60 minutes. Furthermore, these benefits have not been observed outside of the laboratory.

Now, a study published in the *International Journal of Sports Nutrition Exercise Metabolism* has investigated the impact of drinking beetroot juice on high-intensity kayak time-trial performance and efficiency. This is an interesting step, as we're beginning to see the impact on high-intensity non-endurance sports.

The researchers worked with elite kayak athletes, who drank 70 cl of beetroot juice, containing 4.8 mmol nitrates, 2.5 hours before training. The workout consisted of seven four-minute step tests and two four-minute max effort bursts on a kayak ergometer. Performance was measured through distance covered in the four-minute bouts, while efficiency was measured by oxygen use (VO_2).

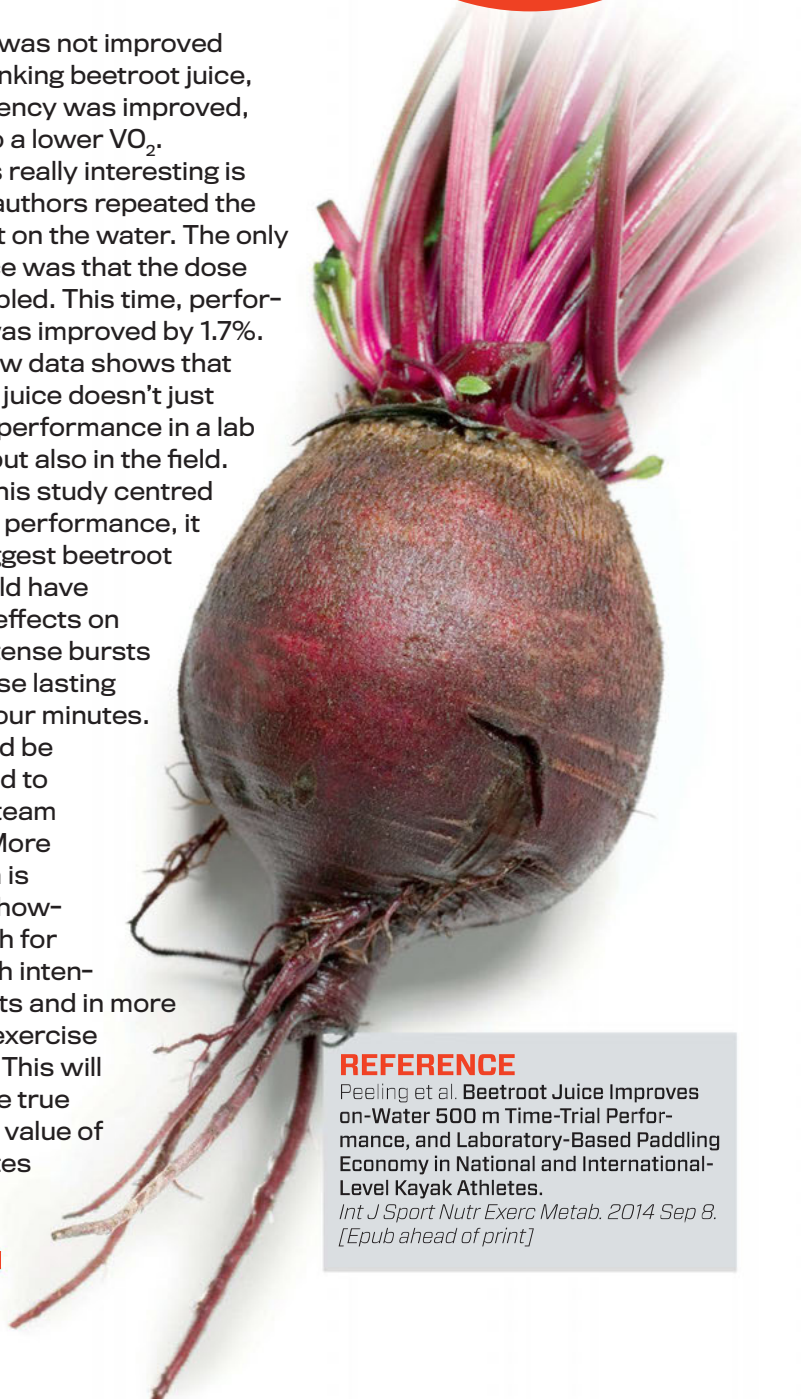
The study found that distance

covered was not improved when drinking beetroot juice, but efficiency was improved, thanks to a lower VO_2 .

What is really interesting is that the authors repeated the study out on the water. The only difference was that the dose was doubled. This time, performance was improved by 1.7%.

This new data shows that beetroot juice doesn't just improve performance in a lab setting, but also in the field.

While this study centred on kayak performance, it does suggest beetroot juice could have positive effects on short, intense bursts of exercise lasting around four minutes. This could be translated to specific team sports. More research is needed, however, both for other high intensity sports and in more real-life exercise settings. This will reveal the true practical value of the nitrates found in beetroot juice. **M&F**



REFERENCE

Peeling et al. Beetroot Juice Improves on-Water 500 m Time-Trial Performance, and Laboratory-Based Paddling Economy in National and International-Level Kayak Athletes. *Int J Sport Nutr Exerc Metab.* 2014 Sep 8. [Epub ahead of print]

SUBSCRIPTION OFFER

Free

The Complete
Muscle & Fitness
Training System
- 5 DVD set*

with every new
M&F subscription

WORTH £45

CURRENT PURCHASE PRICE

Subscribers get it all:

- ✓ The world's best strength training and fitness magazine
- ✓ Free M&F training system - worth £45
- ✓ Delivered to your door
- ✓ Never miss an issue
- ✓ Save over 30% on newsstand price
- ✓ Get your issue before it hits the shops



HOW TO SUBSCRIBE

Phone: 01858 435346 QUOTE CODE MU44

Open weekdays 8am-9.30pm, Saturday 8am-4pm

Online:

www.subscription.co.uk/m&f/mu44

* New subscribers only. Offer available to UK direct debit subscribers only. Limited stocks. The minimum subscription term is 12 months. Subscriptions may be cancelled by providing 28 days notice prior to the first anniversary of the subscription. Please allow 28 days for delivery of gift. This offer is not available to Digital Edition subscribers

USING WEIGHTS TO BURN FAT

British bikini pro **Michelle Brannan** describes how she prescribed weight training to get Elly Hudson lean and muscular

Photography By Simon Howard

THE CLIENT

Elly Hudson approached me in late 2013 about competing in a bikini fitness contest.

Elly had always been active, having swum for Cheshire and Wales in her youth so she understood the demands of competing although she had given up swimming in her teens. After joining a BodyPump class at her local gym, she became interested in weight training and starting working out with weights.

When Elly started training with me she needed to build more muscle but also needed to get leaner, particularly around her stomach.

The challenge was to change her body composition without dropping too much scale weight because Elly, who is only 160 cm tall, was already slightly built.

I formulated a plan to slowly lower body fat and increase muscle to give Elly a fitter, more athletic look.

MY DIAGNOSIS: TRAINING

Weight training is perfect for changing body composition. It builds a layer of muscle, which speeds up the metabolism and burns fat.

Many women turn to cardio to lose fat but if it isn't carried out in conjunction with a good nutrition and resistance training plan it can often be counterproductive. Excessive cardiovascular training can eat away lean tissue and slow the metabolism, meaning you have to do more cardio and cut more calories to continue getting results.

Many women who only do cardio don't get the results they want, certainly in terms of aesthetics. They would be much better served by weight training. Building muscle can completely reshape a woman's body and doesn't have to make her bulky.

Elly wanted to look like a bikini fitness athlete so I geared her training programme towards creating round glutes, a small waist, well developed legs and defined shoulder caps.

I started her on a 5-6 day split body part weight training programme. As she was reasonably new to weight training, her body responded well.

In addition to weight training, she also did up to an hour of cardio a day to begin with to kick-start fat loss. But as her body fat fell, I began to reduce her cardio.

Elly's lower body responded more slowly than her upper body so I split her leg training into different muscle groups and trained them three times a week.

I switched Elly's sets and reps and gave her different exercises every week to keep her body guessing and to hit the muscles from different angles.

Example leg training day

Superset

Leg extension/leg curl: 4 x 10, 12, 12, 12

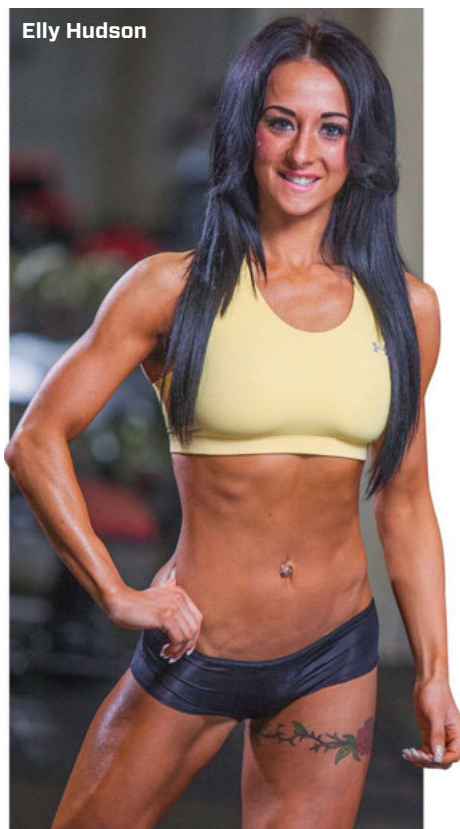
Double leg press: 4 x 10, 12, 12, 12

Smith squat: 4 x 10, 12, 12, 12

Bulgarian split squat: (each leg) 4 x 10, 12, 12, 12

Barbell walking lunge 4 x 20
Elly also trains hamstrings and glutes separately on other days each week

Elly Hudson



MY DIAGNOSIS: NUTRITION

I split Elly's daily meals into six small portions. Once she started weight training and eating consistently we were able to increase her calories.

It is really important to get the metabolism working by eating the right amount of calories over a period of time. Many women make the mistake of not eating regularly, which is not helpful because the body starts to store fat as it is unsure when its next meal is coming. This slows down the basal metabolic rate.

You have to keep fuelling the fire to keep it alight. Eating little and



Michelle trains Elly at M10 Fitness in Nottingham

often is usually the best way to do this, particularly for an active person needing energy throughout the day.

Sample diet

Meal 1

40 g oats (dry weight) with water,
1 scoop whey, handful berries,
1 teaspoon coconut oil, black coffee

Meal 2

130 g grilled chicken breast
with stir-fried vegetables and
150 g cooked rice

Meal 3

130 g grilled chicken breast, 150 g
brown pasta and mixed vegetables

Meal 4

130 g grilled salmon (cooked weight),
grilled asparagus, tomato

Meal 5

Low-fat soft cheese or Greek yogurt
with berries and almonds

*Total average daily calories 1950–2100,
containing 35–40 g fats, 200–220 g
carbs and 180–200 g protein.*

Elly's calories and macronutrient breakdown changed at different stages of her training so this is just a snapshot of her diet at a particular time. Everyone has different individual requirements; for some, this amount of calories might be too high or too low, depending on personal circumstances.

Nutrition and training prescription is never straightforward and rarely follows linear progression. Sometimes you have to take a step back to go forwards: for example, if you want to build more muscle it may be necessary to add more calories.

RESULTS

Elly has been training with my coaching team Showgirl Fitness for almost 18 months now. Last year she won first place at the USN BodyPower Classic in the short height class in bikini fitness, just

seven months into her programme.

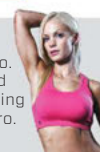
We have now reached the point where Elly is able to do very little daily cardiovascular training. She trains six days a week with weights and enjoys reasonably high calories all year round, even throughout her pre-contest preparation.

She is leaner with more muscle than when she started and her metabolic rate is faster. The key to her success is consistency: Elly is very conscientious about her nutrition and training and allows good food to fuel her workouts.

Consequently, she doesn't need to diet because she eats a certain way all year round—give or take a few hundred calories a day—and is still able to enjoy regular off-plan meals. Elly has become a lean, mean fat-burning machine! **M&F**

ABOUT MICHELLE

Michelle Brannan is an IFBB bikini pro. She also runs a coaching team called Showgirl Fitness and the online training subscription resource BodySculpt Pro. www.michellebrannan.com



SIMON HOWARD

DOUBLE MILITARY PRESS

Build cannonball delts and strength from head to toe with this kettlebell move

By Andy Bolton

Photography by Christopher Bailey

OVERHEAD PRESSING IS SOMETHING OF A FORGOTTEN ART.

First Olympic weightlifting dropped the overhead press as its third lift, and then the bench press soared in popularity.

I shunned overhead pressing for many years, believing that as a powerlifter I didn't need to press overhead. However, I've recently added overhead pressing back into my training programme, and guess what happened? That's right, I broke the all-time British bench press record with a 350 kg lift. Pretty cool, huh?

Overhead pressing used to be far more popular than bench pressing. Old-time strongmen didn't do much benching but they sure as hell did a ton of overhead pressing. And they probably looked better for it... Overhead pressing gives you wide shoulders, the hallmark of a truly strong man.

Another cool thing about overhead pressing is that it's a lot of fun. Putting heavy weights over your head makes you feel alive—unless you drop them on your noggin, but that's another story.

The one thing you need to understand before you dive into pressing overhead is that you need decent thoracic spine mobility and stable shoulders if you're going to make

swift progress, uninterrupted by pain and injury.

To mobilise your thoracic spine, perform a set of kettlebell arm bars as part of every warm-up. To stabilise your shoulders, go for a walk with a moderately heavy kettlebell locked out overhead. Needless to say, don't walk to failure and walk the same distance for both sides.

Once you've got yourself ready to press, you can get started with the double kettlebell military press.



PERFECTING THE TECHNIQUE START POSITION

■ Place the kettlebells on the floor so that they form an inverted V. They should be an inch apart.

■ Stand a few inches behind the kettlebells with your feet wide enough apart to ensure the 'bells don't hit your knees as you swing them between your legs. Make sure your toes are only slightly flared out, or better still, point them forwards if your hip mobility allows.



EXPERT KETTLEBELL MASTERCLASS

■ Put your hands into the crease of your hips and push your hips backwards. Look straight ahead and grip the 'bells.

■ Keeping a neutral spine, brace your abs, tense your lats and grip the 'bells hard. Your shoulders should be packed and your hamstrings should feel tight and "loaded".

■ Sniff in through your nose and hike the 'bells back between your legs. Keep your arms straight.

■ Snap your hips forwards, being sure to keep your abs braced, lats tensed and shoulders packed. Catch the 'bells in the rack position, and then bring your stance in so it's about shoulder width.

THE PRESS

■ Push your feet into the floor, tense your quads, clench your butt, brace your abs, tense your lats and crush grip the 'bells as hard as you can. You should feel total tightness from head to toe.

■ Sniff in through your nose, stay tight and squeeze the 'bells even harder as you drive them straight up overhead.

■ Once the 'bells are locked out, hold for a second and "own" the movement. Your arms should be totally straight and in line with your ears—not pointing forwards—and your shoulders should be packed.

■ Pull the 'bells back down while staying tight. Sniff in some more air and begin the next rep.

IMPORTANT TIP

As you press the 'bell overhead, do not allow any part of your body to relax. Keep your quads, glutes, abs and lats tight and be sure to squeeze the 'bells as hard as you can. Any relaxation of tightness will lead to a strength leakage and a dramatic reduction in strength.

PROGRAMME YOUR WORKOUT

Practise your presses with sets of three to five reps—the perfect number for building strength. Rest for two to five minutes between

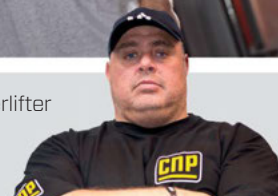
sets—as long as you need to recover and perform at your best on the next set.

Before progressing to the next size of 'bell, make sure you can do 10 sets of five with a given weight. So, before using the double 28s, you should be able to press the double 24s for 10 sets of five. The four kilo jump in weight means that a ton of volume is necessary before you can even think about truly owning the next size of 'bell. Such is the reality of working with kettlebells.

For a killer workout that works every muscle in your body, alternate double kettlebell pressing and front squatting. Take a pair of 'bells and work up to 10 sets of five on your presses and squats. Then do the same with the next pair of 'bells—four kg heavier. It might take six months to progress from 24s to 28s but boy, will it be worth it. More strength and size will be yours. And your barbell lifts will reflect your increase in strength on their kettlebell equivalents. **M&F**



ANDY BOLTON is a multiple world champion powerlifter and world record holder. He was the first man to deadlift more than 1,000 lbs. For more information visit andyboltonstrength.org



HOT BOD

PRESTON FASHION DESIGNER SOPHIE NISBET, 26, DECIDED TO GET IN SHOOT-READY SHAPE TO GIVE HERSELF SOMETHING TO FOCUS ON IN TRAINING. "I didn't think I'd be able to do it, so I really surprised myself," she says. Her 16-week programme produced stunning results and a six-pack any fitness model would be proud of. **M&F**



MATT MARSH

POWERTEC

Powertec has gained a very strong following of repeat customers. The main reason being, our equipment is carefully designed and engineered to be precise in motion. We came from the commercial gym background so we have many years of experience in building equipment for the most demanding market that accepts nothing less than perfection.

Powertec owns its factory so aside from having a highly experienced workforce; we can also control and maintain our quality. We have always done all production procedures under one roof. we source only the finest materials and component parts available.

BEWARE OF INFERIOR IMITATIONS!

**SCAN TO SEE
OUR FULL RANGE**



BUY NOW PAY 6 MONTHS LATER:

Subject to status. Please call for full details or written quotation



Fitness Nutrition now available in our 11 Nationwide Showrooms



Start enjoying your new fitness regime today!

Call **0800 634 0100** or visit
www.fitness-superstore.co.uk

Northampton 13 Gate Lodge Close, Round Spinney, Northampton, NN3 8RJ
Gloucester 2 Fuller Ct, Westgate St, Gloucester, GL1 2UN
Surrey 30-32 High Street, Frimley, Surrey, GU16 7JD
Livingston Units 91, 92 & 54b, Livingston Designer Outlet, Almondvale Avenue, Livingston EH54 6Q
Kent 30-34 Grosvenor Rd, Tunbridge Wells, Kent, TN11 2AP

Chester 157-167 Foregate St, Chester, CH1 1HF
Manchester Chill Factor, Unit 14/15 Trafford Way, Trafford Quays Leisure Village, Manchester M41 7JA
Newcastle Royal Quays Outlet, Coble Dene, North Shields, NE29 6DW
Leeds Junction 32 Retail Outlet, Tomahawk Trail, Glasshoughton, WF10 4FR
Birmingham House Of Fraser (4th floor), Corporation St, Birmingham, West Midlands, B2 4LS

* Weights sold separately
Bodypower Sports PLC - Sole UK distributor for Powertec Fitness Products

Find us on   

DEFINITION OF PURITY



100%

WHEY PROTEIN ISOLATE

ZERO

CARBS - LACTOSE

LEAN MUSCLE FORMULA